



STIC Search Report

EIC 1700

STIC Database Tracking Number: 106013

TO: Katarzyna Wyrozebski Lee
Location: CP3 5E09
Art Unit : 1714
October 16, 2003

Case Serial Number: 09/936598

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes

EIC1700

Search Results

Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search or *contact:*

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

Voluntary Results Feedback Form

➤ *I am an examiner in Workgroup:* *Example:*

➤ *Relevant prior art found, search results used as follows:*

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(Journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Search results were not useful in determining patentability or understanding the invention.

Other Comments:

Drop off completed forms in CP3/4 - 3D62 .

106013

Fuller, Kathleen

From: Wyrozebski, Katarzyna
Sent: Wednesday, October 15, 2003 12:26 PM
To: Fuller, Kathleen
Subject: Hi Kathleen

I was wondering if you would be able to conduct a search for me.

Application SN 09/936508 (IFW application) having following claim 1:

1. (as Amended) A coating composition for metal capable of being formed into a container, said coating composition comprising:
a) a polyester resin in the amount of 20-50% by wt., said polyester resin comprising trimethylolpropane in the amount of 0.1-10% by wt., neopentylglycol in the amount of 15-30% by wt., at least one other polyol in the amount of 5-20% by wt., a phthalic acid in the amount of 30-60% by wt., and adipic acid in the amount of 10-35% by wt;
b) a resol resin in the amount of 2-15% by wt. and comprising a condensation product made from a phenol or homologue thereof and formaldehyde; and
c) a solvent component in the amount of 35-75% by wt., all foregoing weight percentages being based on the total weight of the coating composition; and
the coating composition being substantially free of bisphenol-A-diglycidyl ether, bisphenol-F-diglycidyl ether, homologues thereof, and polyvinyl chloride.

I am having trouble with the polyester polymer having rather detailed components: trimethylol propane, neopentyl glycol, other polyol, phthalic acid and adipic acid.

The inventors are Christian Vogt and Peter Ambrosi, it is a 371 of PCT/EP00/01065 and priority to application 199 12 974.8 filed on 3/16/1999.

The European search report is in the application, however references provided are overcome by the amendment to claim 1 (above).

V/R
Kat.

Katarzyna Wyrozebski-Lee
U.S. Patent and Trademark Office
(703) 306-5875

Wyrozebski Lee 09/936508 10/16/03 Page 1

=> file reg
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STRUCTURE FILE UPDATES: 15 OCT 2003 HIGHEST RN 605619-14-5
DICTIONARY FILE UPDATES: 15 OCT 2003 HIGHEST RN 605619-14-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> file hcplus
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FILE COVERS 1907 - 16 Oct 2003 VOL 139 ISS 16
FILE LAST UPDATED: 15 Oct 2003 (20031015/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que
L5 14850 SEA FILE=REGISTRY ABB=ON 77-99-6/CRN
L7 16127 SEA FILE=REGISTRY ABB=ON 126-30-7/CRN
L9 28693 SEA FILE=REGISTRY ABB=ON 124-04-9/CRN
L10 1811 SEA FILE=REGISTRY ABB=ON L5 AND L7 AND L9
L13 171045 SEA FILE=REGISTRY ABB=ON POLYESTER/ECT
L24 285 SEA FILE=REGISTRY ABB=ON L10 AND PHTHAL?
L25 268 SEA FILE=REGISTRY ABB=ON L13 AND L24
L26 48 SEA FILE=REGISTRY ABB=ON L25 AND 5/NC - 5 components in
L27 167 SEA FILE=HCPLUS ABB=ON L26 the polymer

L28 149 SEA FILE=HCAPLUS ABB=ON L27 AND COATING?/SC
L29 10 SEA FILE=HCAPLUS ABB=ON L28 AND CAN#

=> d 129 all 1-10 hitstr

L29 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:800385 HCAPLUS
DN 138:222998
TI Spectroscopic adsorption and effective dosage in accelerated weathering of
a polyester-urethane coating
AU Croll, S. G.; Skaja, A. D.
CS Department of Polymers and Coatings, North Dakota State University, Fargo,
ND, 58105-5376, USA
SO Journal of Materials Science (2002), 37(22), 4889-4900
CODEN: JMTSAS; ISSN: 0022-2461
PB Kluwer Academic Publishers
DT Journal
LA English
CC 42-4 (Coatings, Inks, and Related Products)
AB Topcoat integrity is a crucial property for coating systems for protecting
metal substrates in conjunction with anti-corrosion primers. IR
spectroscopy was used to examine the chem. changes seen during accelerated
weathering in a model topcoat urethane polymer and to measure the coating
ablation. During weathering the UV absorbance of the urethane coating
showed a typical tail (yellowing) into the visible region that increased
with exposure period. Effective UV dosage can be calcd. by
integrating the spectrum of the incident radiation with the quantum yield
for the degrdn. process and the UV absorption of the material under
investigation. Depending on the form of the quantum yield, there is a
clear acceleration of the absorption of damaging radiation because the
absorbance increases with exposure. This non-linear relationship offers
possibilities on how to est. a service lifetime; one could choose a value
of the exposure period characteristic of the start of the acceleration in
dosage, or one might choose the asymptote at which the dosage rate becomes
very great. The UV tailing into the visible region is analyzed as an
example of an "Urbach" tail which is usually attributed to structural
disorder that introduces energy levels between the principle electronic
states.
ST UV weathering polyester polyurethane coating
IT Weathering
 (accelerated; spectroscopic adsorption and effective dosage in
 accelerated weathering of a polyester-urethane coating)
IT Polyurethanes, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (polyester-, coating; spectroscopic adsorption and effective dosage in
 accelerated weathering of a polyester-urethane coating)
IT Polymer degradation
 (radiochem., UV; spectroscopic adsorption and effective dosage in
 accelerated weathering of a polyester-urethane coating)
IT Coating materials
 (topcoats; spectroscopic adsorption and effective dosage in accelerated
 weathering of a polyester-urethane coating)
IT 475661-20-2, Adipic acid-Desmodur N3300-isophthalic acid-neopentyl
glycol-trimethylolpropane copolymer
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)

(spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Allen, N; Polym Deg Stab 1987, V19, P147 HCAPLUS
- (2) Allen, N; Polym Deg Stab 2001, V71, P1 HCAPLUS
- (3) Bauer, D; J Coatings Tech 1987, V59(755), P103 HCAPLUS
- (4) Bauer, D; Polym Deg Stab 2000, V69, P307 HCAPLUS
- (5) Bierwagen, G; Prog Org Coatings 2001, V41, P201 HCAPLUS
- (6) Cohen, S; J Polym Sci: A-1 1971, V9, P3263 HCAPLUS
- (7) Connell, G; Topics in Applied Physics 1985, V36
- (8) Croll, S; 2nd International Conference on Methodologies and Meterologies for Service Life Prediction 1999
- (9) Das, P; Polym Deg Stab 1995, V48, P11 HCAPLUS
- (10) Davidson, R; J Photochemistry and Photobiology B 1996, V33, P3 HCAPLUS
- (11) Gerlock, J; Polym Deg Stab 1998, V62, P225 HCAPLUS
- (12) Gupta, S; J Polym Sci: B 2000, V38, P1589 HCAPLUS
- (13) Horak, M; Interpretation and Processing of Vibrational Spectra 1978
- (14) Jaffe, H; Theory and Applications of Ultraviolet Spectroscopy 1965
- (15) John, S; Phys Rev B 1988, V37(12), P6963
- (16) Kim, H; Langmuir 2000, V16, P5382 HCAPLUS
- (17) Maerov, S; J Polym Sci: A 1965, V3, P487
- (18) Martin, J; Prog Org Coatings 1993, V23, P49 HCAPLUS
- (19) Mishra, R; Nucl Inst Meth Phys Res B 2000, V168, P59 HCAPLUS
- (20) Mullins, O; Appl Spectroscopy 1992, V46(2), P354 HCAPLUS
- (21) O'Leary, S; J Appl Phys 1997, V82, P3334 HCAPLUS
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- (24) Rivaton, A; Polym Deg Stab 1998, V62, P127 HCAPLUS
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- (26) Tauc, J; Phys Stat Sol 1966, V15, P627 HCAPLUS
- (27) van der Ven, L; J Oil and Colour Chemists Assoc 1991, V74(11), P401
HCAPLUS
- (28) Wicks, Z; Organic Coatings: Science and Technology, 2nd ed 1994
- (29) Wilhelm, C; Polymer 1998, V39(5), P1223 HCAPLUS
- (30) Wilhelm, C; Polymer 1998, V39(24), P5973 HCAPLUS
- (31) Wypch, G; Handbook of Material Weathering, 2nd ed 1995

IT 475661-20-2, Adipic acid-Desmodur N3300-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)

RN 475661-20-2 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with Desmodur N 3300,
2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol
and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 104559-01-5

CMF Unspecified

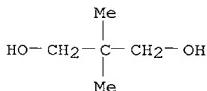
CCI MAN

mystery component

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

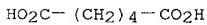
CM 2

CRN 126-30-7
CMF C5 H12 O2



CM 3

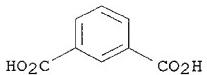
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CMF C6 H10 O4



CM 4

CRN 121-91-5
CMF C8 H6 O4

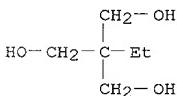
phthalic acid



CM 5

CRN 77-99-6
CMF C6 H14 O3

Trimethylolpropane



- L29 ANSWER 2 OF 10 HCPLUS COPYRIGHT 2003 ACS on STN
AN 2002:700421 HCPLUS
DN 137:386046
TI Quantitative use of ultraviolet spectroscopy to calculate the effective irradiation dosage during weathering
AU Croll, Stuart; Skaja, Allen
CS Department of Polymers and Coatings, North Dakota State University, Fargo, ND, 58105, USA
SO Macromolecular Symposia (2002), 187(Quo Vadis-Coatings?), 861-871

CODEN: MSYMEC; ISSN: 1022-1360
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
CC 42-4 (Coatings, Inks, and Related Products)
AB The UV absorbance of a urethane coating showed typical yellowing that increased with exposure period. An effective dosage was calcd. from the solar spectrum, the quantum yield for the degrdn. process and the UV absorption. Assuming a const. quantum yield, there is a clear acceleration of the absorption of damaging radiation because the UV absorption increases with exposure. This nonlinear relationship offers possibilities on how to est. a service lifetime. In addn., the yellowing can be analyzed as an "Urbach" tail which is usually attributed to structural disorder that introduces energy levels between the ground and excited electronic states.
ST polyurethane coating weathering yellowing UV dosage
IT Coating materials
UV and visible spectroscopy
Weathering
Yellowing
(calcn. of effective UV irradn. dosage during weathering of urethane coatings detd. by UV spectroscopy)
IT Polyurethanes, uses
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(calcn. of effective UV irradn. dosage during weathering of urethane coatings detd. by UV spectroscopy)
IT 475661-20-2, Neopentyl glycol-trimethylolpropane-isophthalic acid-adipic acid-Desmodur N 3300 copolymer
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(calcn. of effective UV irradn. dosage during weathering of urethane coatings detd. by UV spectroscopy)
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Allen, N; Polym Degrad Stab 1987, V19, P147 HCAPLUS
(2) Allen, N; Polym Degrad Stab 2001, V71, P1 HCAPLUS
(3) Bauer, D; J Coatings Technol 1987, V59, P103 HCAPLUS
(4) Cohen, S; J Polym Sci: A-1 1971, V9, P3263 HCAPLUS
(5) Das, P; Polym Degrad Stab 1995, V48, P11 HCAPLUS
(6) Davidson, R; J Photochemistry and Photobiology B 1996, V33, P3 HCAPLUS
(7) Gerlock, J; Polym Degrad Stab 1998, V62, P225 HCAPLUS
(8) Gupta, S; J Polym Sci B 2000, V38, P1589 HCAPLUS
(9) Jaffe, H; Theory and Applications of Ultraviolet Spectroscopy 1965
(10) John, S; Phys Rev B 1988, V37, P6963
(11) Maercov, S; J Polym Sci A 1965, V3, P487
(12) Martin, J; Prog Org Coatings 1993, V23, P49 HCAPLUS
(13) Mishra, R; Nucl Inst Meth Phys Res B 2000, V168, P59 HCAPLUS
(14) Mullins, O; App Spectroscopy 1992, V46, P354 HCAPLUS
(15) O'Leary, S; J Appl Phys 1997, V82, P3334 HCAPLUS
(16) Perrin, F; Polym Degrad Stab 2000, V70, P469
(17) Rivaton, A; Polym Degrad Stab 1998, V62, P127 HCAPLUS
(18) Rivaton, A; Polym Degrad Stab 1998, V62, P127 HCAPLUS
(19) Tauc, J; Phys Stat Sol 1966, V15, P627 HCAPLUS
(20) Van Der Ven, L; J Oil and Colour Chemists Assoc 1991, V74, P401 HCAPLUS
(21) Wilhelm, C; Polymer 1998, V39, P5973 HCAPLUS

IT 475661-20-2, Neopentyl glycol-trimethylolpropane-isophthalic acid-adipic acid-Desmodur N 3300 copolymer
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(calcn. of effective UV irradn. dosage during weathering of urethane coatings detd. by UV spectroscopy)

RN 475661-20-2 HCPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with Desmodur N 3300, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 104559-01-5

CMF Unspecified

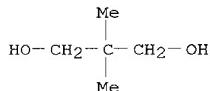
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 126-30-7

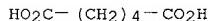
CMF C5 H12 O2



CM 3

CRN 124-04-9

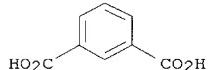
CMF C6 H10 O4



CM 4

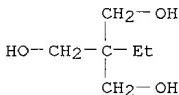
CRN 121-91-5

CMF C8 H6 O4



CM 5

CRN 77-99-6
 CMF C6 H14 O3



- L29 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:700392 HCAPLUS
 DN 138:5602
 TI Dual-cure processes: Towards deformable crosslinked coatings
 AU El-Ghayoury, Abdelkrim; Boukaftane, Chouaib; de Ruiter, Barteld; van der Linde, Rob
 CS Department of Polymer Technology, TNO Industrial Technology, Eindhoven, 5600 HE, Neth.
 SO Macromolecular Symposia (2002), 187(Quo Vadis-Coatings?), 553-561
 CODEN: MSYMEC; ISSN: 1022-1360
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 CC 42-3 (Coatings, Inks, and Related Products)
 AB Two dual-cure processes consisting of a UV-initiated radical polynm. followed by either a UV-induced cationic polynm., or a thermal addn. reaction, were investigated. The feasibility of the processes was studied using an acrylate-oxtane monomer for the UV combination, and an acrylated oligoester for the UV/heat combination. It was shown by FTIR and Tg measurements, that both steps of each process could be performed efficiently and sep. This allowed the prodn. of a deformable partially cured coating, whose cure can then be completed, leading to the required final properties. Furthermore, it was demonstrated that the increase of the functionality of the reactive diluent led to a decrease of the thermal crosslinking extent. This is probably due to the reduced mobility of the reactive species that is caused by an enhanced UV crosslinking taking place during the first step.
 ST dual cure deformable crosslinking coating
 IT Coating process
 Crosslinking
 (UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)
 IT Polyesters, uses
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 (acrylate-terminated; UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)
 IT 476358-66-4 476615-40-4, Trimethylolpropane-neopentyl glycol-adipic acid-isophthalic acid copolymer, acrylate
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 (UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)

IT 449404-55-1, Desmodur BL 3272MPA
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent; UV/UV or UV/heat dual cure processes for prepn. of
deformable crosslinked coatings)

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Boeckeler, R; US 4548895 1985 HCPLUS
- (2) Boeckeler, R; US 4444806 1988 HCPLUS
- (3) Boeckeler, R; US 5679719 1997 HCPLUS
- (4) Boeckeler, R; Radcure, Conf Proc 10th 1986, P16/1 HCPLUS
- (5) Davidson, R; Exploring the science technology and applications of UV and EB curing 1991, P327
- (6) Decker, C; J Macromol Sci - Pure Appl Chem 1997, V A34, P605 HCPLUS
- (7) Decker, C; Materials Science and Technology 1997, V18, P615 HCPLUS
- (8) Decker, C; Polym Int 1998, V45, P133 HCPLUS
- (9) Itoh, H; J Polym Sci Part A 1996, V34, P217 HCPLUS
- (10) McGinnis, V; 8th Symposium 1978
- (11) Noomen, A; J Oil Col Chem Assoc 1989, V64, P347
- (12) Noomen, A; Sassenheim, Neth Congr Fatipec 1980, V15(1), P346
- (13) Noomen, A; Sassenheim, Neth Congr Fatipec 1984, V17(1), P255
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- (15) Peeters, S; Polymers Paints Colour Journal 1989, V179, P304 HCPLUS
- (16) Peeters, S; Radiation Curing in Polymer Science and Technology 1993, V3 HCPLUS
- (17) Roffey, C; Photopolymerization of surface coatings 1982
- (18) Rohm and Haas company; EP 0335629 A2 1989
- (19) Sasaki, R; J Macromol Sci-Pure Appl Chem 1995, V A32, P1699 HCPLUS
- (20) Stohr, A; Macromol Chem Phys 1998, V199, P751 HCPLUS
- (21) Vabrik, R; J Appl Polym Sci 1998, V68, P111 HCPLUS
- (22) Vansteenkiste, S; Macromolecules 1999, V32, P55 HCPLUS

IT 476615-40-4, Trimethylolpropane-neopentyl glycol-adipic acid-isophthalic acid copolymer, acrylate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)

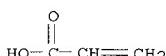
RN 476615-40-4 HCPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid, 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

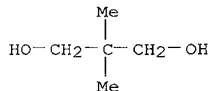
CRN 25950-34-9

CMF (C8 H6 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2)x

CCI PMS

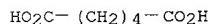
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CRN 126-30-7
CMF C5 H12 O2



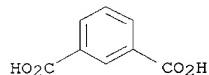
CM 4

CRN 124-04-9
CMF C6 H10 O4



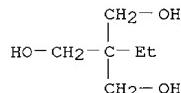
CM 5

CRN 121-91-5
CMF C8 H6 O4



CM 6

CRN 77-99-6
CMF C6 H14 O3



L29 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1997:684149 HCAPLUS
DN 127:320094
TI Liquid thermoset sealers and sealing process for molded plastics
IN Kausch, Charles M.; Livigni, Russell A.; Melby, Earl G.; Sharma, Satish C.

PA Cambridge Industries, Inc., USA
 SO U.S., 7 pp., Cont. of U. S. Ser. No. 81,767, abandoned.
 CODEN: USXXAM

DT Patent

LA English

IC ICM B05D001-38
ICS B05D003-02

NCL 427258000

CC 42-11 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5674565	A	19971007	US 1994-361913	19941222
PRAI US 1993-81767		19930623		

AB Porous surfaces that can be generated during the manufg. and processing of molded plastic parts are sealed by applying liq. thermoset coatings to preheated (49-204.degree.) parts and curing to create a barrier on the surface to gasses generated during heat curing of subsequently applied surface coatings. The liq. thermosetting compn. consists essentially of (a) an unsatd. polyester resin and/or a vinyl ester resin; .gtreq.1 crosslinking ethylenically unsatd. monomer; and an initiator, optionally with an accelerator or mixt. of accelerators; or (b) a reaction product of .gtreq.1 polyisocyanate with .gtreq.1 member selected from the group consisting of polyols, polyamines, polymercaptans, and polycarboxylic acids; or (c) the reaction product of (b) and a crosslinker having functionality greater than 2 selected from species reactive with isocyanate; or (d) combinations of (a) and (b); or (e) a satd. polyester, polyether, or acrylic resin contg. .gtreq.2 hydroxyl and/or carboxyl groups per mol. along with an alkylated urea-formaldehyde resin, melamine-formaldehyde resin, or benzoguanamine-formaldehyde resin, and optional components selected from the group consisting of fillers, conductive pigments, antioxidants, pigments, moisture scavengers, low profile additives, and diluents.

ST liq thermoset sealers molded plastic; fiber reinforced molded plastic coating; unsatd polyester sealing coating; polyurethane sealing coating

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (acrylates; liq. thermoset sealers and sealing process for molded plastics)

IT Molded plastics, miscellaneous

RL: MSC (Miscellaneous)
 (fiber-reinforced, thermoset; liq. thermoset sealers and sealing process for molded plastics)

IT Coating process

Sealing compositions

(liq. thermoset sealers and sealing process for molded plastics)

IT Acrylic polymers, uses

Aminoplasts

Polyesters, uses

Polyethers, uses

Polyoxyalkylenes, uses

Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(liq. thermoset sealers and sealing process for molded plastics)

IT Polyesters, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(unsatd.; liq. thermoset sealers and sealing process for molded plastics)

IT 101-68-8 103-71-9, Phenyl isocyanate, uses 9003-08-1,
 Melamine-formaldehyde resin 9003-20-7, LF-90 9011-05-6,
 Urea-formaldehyde resin 9051-49-4, PEP 550 25101-03-5, Poly(propylene
 adipate) 25190-06-1 25322-69-4 26160-89-4, Benzoguanamine-
 formaldehyde resin 27083-66-5, Polypropylene fumarate 27813-02-1,
 Hydroxypropyl methacrylate 27941-08-8, Poly(propylene adipate)
 37278-49-2, Polypropylene fumarate, sru 39394-41-7, Isonate 143L
 55818-57-0, Bisphenol A-epichlorohydrin copolymer, acrylate
79793-81-0, Adipic acid-1,4-cyclohexanedimethanol-2,2-dimethyl-1,3-
 propanediol-phthalic anhydride-trimethylolpropane copolymer 172964-74-8,
 Isonate 2191 197592-44-2, Lupranate M

RL: TEM (Technical or engineered material use); USES (Uses)
 (liq. thermoset sealers and sealing process for molded plastics)

IT **79793-81-0**, Adipic acid-1,4-cyclohexanedimethanol-2,2-dimethyl-1,3-
 propanediol-phthalic anhydride-trimethylolpropane copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (liq. thermoset sealers and sealing process for molded plastics)

RN 79793-81-0 HCPLUS

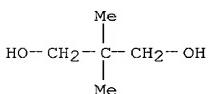
CN Hexanedioic acid, polymer with 1,4-cyclohexanedimethanol,
 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol
 and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

has all 5 components

CRN 126-30-7

CMF C5 H12 O2



neopentyl glycol

CM 2

CRN 124-04-9

CMF C6 H10 O4

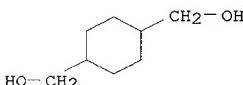
HO₂C-(CH₂)₄-CO₂H

adipic acid

CM 3

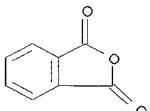
CRN 105-08-8

CMF C8 H16 O2

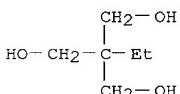


Polyol

CM 4

CRN 85-44-9
CMF C8 H4 O3*phthalic anhydride*

CM 5

CRN 77-99-6
CMF C6 H14 O3*trimethylolpropane*

L29 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1996:628296 HCAPLUS
 DN 125:250529
 TI Corrosion-, retort-, and water-resistant modified epoxy resin coatings for beverage cans
 IN Iwahashi, Masanori; Takahashi, Masahiro; Fujii, Shigenori
 PA Dainippon Ink & Chemicals, Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D163-00

ICA C08G059-14; C08G059-16

CC 42-9 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08188741	A2	19960723	JP 1995-4000	19950113
PRAI	JP 1995-4000		19950113		
AB Title org. solvent coatings contain epoxy resins modified by (un)satd. carboxylic acid (derivs.) or oxycarboxylic acids and P compds. contg. .gtoreq.2 OH groups. An org. solvent soln. contg. p-toluenesulfonic acid, and a polymer blend of Super-Beckamine L 125-60 40%, acrylic acid-Bu acrylate-Bu methacrylate-Me methacrylate-styrene copolymer 50%, and Epikote 1001 hydroxypivalate ester phosphite ester Et3N salt 10% showed good storage stability at 40.degree. over 1 mo and gloss, transparency, hardness, and corrosion/water/retort resistance.					

ST phosphoric carboxylic acid modified epoxy coating; phosphorous carboxylic acid modified epoxy coating; retort resistance can coating modified epoxy; storage stability can coating modified epoxy

IT Epoxy resins, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(can coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)

IT Acrylic polymers, uses
Aminoplasts
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(can coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)

IT Coating materials
(anticorrosive, water-resistant, storage-stable, can coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)

IT 9003-08-1, Super-beckamine L 125-60 26160-89-4, Benzoguanamine-formaldehyde copolymer 39527-54-3, Acrylic acid-butyl acrylate-butyl methacrylate-methyl methacrylate-styrene copolymer 52247-59-3, Adipic acid-isophthalic acid-neopentyl glycol-terephthalic acid-trimethylolpropane copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(can coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)

IT 173008-72-5P 182075-61-2P 182075-63-4P 182075-65-6P 182075-67-8P 182075-69-0P 182075-71-4P 182075-72-5P 182075-74-7P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(org. solvent compns. with acrylic resins or polyesters for can coatings)

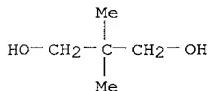
IT 52247-59-3, Adipic acid-isophthalic acid-neopentyl glycol-terephthalic acid-trimethylolpropane copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(can coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)

RN 52247-59-3 HCPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

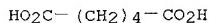
CM 1

CRN 126-30-7
CMF C5 H12 O2



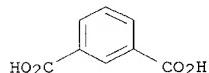
CM 2

CRN 124-04-9
CMF C6 H10 O4



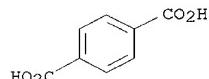
CM 3

CRN 121-91-5
CMF C8 H6 O4



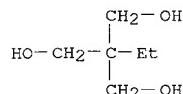
CM 4

CRN 100-21-0
CMF C8 H6 O4



CM 5

CRN 77-99-6
CMF C6 H14 O3



L29 ANSWER 6 OF 10 HCPLUS COPYRIGHT 2003 ACS on STN
AN 1994:10458 HCPLUS
DN 120:10458
TI Manufacture of storage-stable aqueous polymer dispersion coatings
IN Amemoto, Masahide
PA Dainippon Ink & Chemicals, Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D005-00

ICA B29B007-74

CC 42-10 (*Coatings, Inks, and Related Products*)
Section cross-reference(s): 47

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05098192	A2	19930420	JP 1991-257877	19911004
PRAI	JP 1991-257877		19911004		
AB	The title coating, which can be baked at low temp. (115.degree., 20 min) to form films with good balance of adhesion, hardness, and blister, alk. and solvent resistance, are prepd. by charging mixts. of H2O hardener and resins of acid value .1toreq.50 into a chamber (contg. hole- and channel-contg. disks) under pressure, and emulsifying the mixts. through impacting the mixts. to the disk surfaces at 102-104 kg/cm ² . A mixt. of H2O 140, Super-Beckamine J 820 40, and a soya oil-pentaerythritol-castor oil-phthalic anhydride-ethylene glycol polymer 100 parts was emulsified by a microfluidizer at 103 kg/cm ² to form a dispersion with good storage stability at room temp. for 3 mo.				
ST	alkyd resin aq dispersion storage stability; low temp cure aq alkyd resin; microfluidizer aq alkyd resin dispersion				
IT	Soybean oil RL: USES (Uses) (alkyd resins from, aq emulsion coating contg., low temp.-curable, storage-stable, manuf. by microfluidizers)				
IT	Acrylic polymers, uses Alkyd resins Fluoropolymers Polyesters, uses RL: PREP (Preparation) (aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of, by microfluidizers)				
IT	Fluidized beds and systems (micro-, as emulsifying app, prep. of storage-stable aq. coatings by)				
IT	Emulsification (app., contg. hole- and channel-contg. disks, prep. of storage-stable and low temp-curable aq. coatings by)				
IT	Fatty acids, compounds RL: USES (Uses) (castor-oil, alkyd resins from, aq emulsion coating contg., low temp.-curable, storage-stable, manuf. by microfluidizers)				
IT	Epoxy resins, compounds RL: PREP (Preparation) (esters, aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of, by microfluidizers)				
IT	Fatty acids, compounds RL: USES (Uses) (soya, reaction products with epoxy resins, aq. emulsion coating contg., low temp.-curable, storage-stable, manuf. by microfluidizers)				
IT	Coating materials (storage-stable, aq. emulsions, low temp.-curable, manuf. of, by microfluidizers)				
IT	85-44-9DP, Phthalic anhydride, reaction products with ethylene glycol and pentaerythritol and soya oil and castor-oil fatty acids 107-21-1DP, Ethylene glycol, reaction products with phthalic anhydride and				

pentaerythritol and soya oil and castor-oil fatty acids 115-77-5DP,
Pentaerythritol, reaction products with phthalic anhydride and ethylene
glycol and soya oil and castor-oil fatty acids 25068-38-6DP, Epiclon
4055, reaction products with soya fatty acids 31227-05-1P
151752-78-2P 151752-79-3P

RL: PREP (Preparation)

(aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of,
by microfluidizers)

IT 9003-08-1P, Super-Becakamine J 820

RL: PREP (Preparation)

(aq. emulsions contg. alkyd, epoxy, polyester or fluoro resins and, low
temp.-curable, storage-stable, manuf. by microfluidizers)

IT 31227-05-1P

RL: PREP (Preparation)

(aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of,
by microfluidizers)

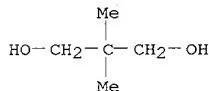
RN 31227-05-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,
2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and
4,4'-(1-methylethyldiene)bis[cyclohexanol] (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

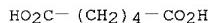
CMF C5 H12 O2



CM 2

CRN 124-04-9

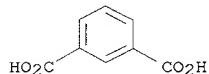
CMF C6 H10 O4



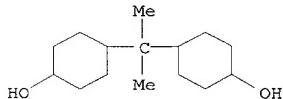
CM 3

CRN 121-91-5

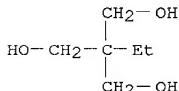
CMF C8 H6 O4



CM 4

CRN 80-04-6
CMF C15 H28 O2

CM 5

CRN 77-99-6
CMF C6 H14 O3

L29 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1988:592256 HCAPLUS
 DN 109:192256
 TI Aqueous coating compositions for cans from aluminum, tinplate and steel
 IN Scherping, K. H.; Hoelscher, Hans Joerg; Reichelt, Uwe; Reiter, Udo
 PA BASF Lacke und Farben A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 10 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C09D003-58
 ICS C09D003-64; C09D003-76; C09D003-52; C09D005-44; B05D001-02;
 C25D013-14
 CC 42-7 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3627860	A1	19880218	DE 1986-3627860	19860816
	EP 256521	A1	19880224	EP 1987-111720	19870813
	EP 256521	B1	19901114		
	R: ES, GR				
	WO 8801287	A1	19880225	WO 1987-EP445	19870813
	W: AU, BR, DK, FI, JP, NO, SU, US				
	FW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU	8777888	A1	19880308	AU 1987-77888	19870813
AU	607934	B2	19910321		
JP	01501482	T2	19890525	JP 1987-504771	19870813
JP	2536889	B2	19960925		

EP 324741	A1	19890726	EP 1987-905209	19870813
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
BR 8707772	A	19890815	BR 1987-7772	19870813
AT 58389	E	19901115	AT 1987-111720	19870813
RU 2074210	C1	19970227	RU 1987-4613521	19870813
ZA 8706028	A	19880427	ZA 1987-6028	19870814
CA 1306566	A1	19920818	CA 1987-544527	19870814
CN 87106405	A	19880727	CN 1987-106405	19870815
CN 1012069	B	19910320		
NO 8801601	A	19880614	NO 1988-1601	19880413
DK 8802046	A	19880615	DK 1988-2046	19880414
US 4997865	A	19910305	US 1989-327964	19890214
FI 8900718	A	19890215	FI 1989-718	19890215
FI 97065	B	19960628		
FI 97065	C	19961010		
US 5114993	A	19920519	US 1991-642243	19910108
LT 3311	B	19950626	LT 1993-527	19930506
LV 10473	B	19960420	LV 1993-431	19930527
PRAI DE 1986-3627860	A	19860816		
EP 1987-111720	A	19870813		
WO 1987-EP445	A	19870813		
US 1989-327964	A3	19890214		
AB	The title compns., useful in electrodip coating, contain 3-70% binders, 5-16% phenolic resins and/or aminoplasts, 2-5% NH ₃ and/or amines, and 20-60% org. solvents. The binders comprise epoxy resins 20-80, polyester polycarboxylic acids (acid no. 30-150) 1-60, and unsattd. monomers (10-50% carboxylated) 10-50%, and have acid no. 20-150. A binder was prep'd. by peroxide-initiated polymn. of acrylic acid 130, styrene 160, and Bu acrylate 40 g in the presence of 2400 g condensate (acid no. 20) of 1050 g bisphenol A epoxy resin (epoxy equiv. 3400) and 1000 g polyester (acid no. 85) from isophthalic acid 1330, adipic acid 145, neopentyl glycol 780, trimethylolpropane 268, and trimellitic anhydride 500 g, and heated with 190 g methylolated bisphenol A-HCHO resin. A 12% aq. dispersion (sp. cond. 2 mS/cm) of this compn. (80% neutralized with N,N-dimethylethanolamine) was electrodeposited on a tinplate can to give a coating with low porosity and good adhesion and resistance to sterilization.			
ST	can coating electrophoretic; epoxy resin coating can; polyester epoxy coating can; acrylic polymer coating can; phenolic resin coating can; electrodip coating can			
IT	Crosslinking agents (aminoplasts and phenolic resins, for electrophoretic coatings for cans)			
IT	Cans (electrophoretic coatings for, carboxylated polyester-epoxy resin reaction products as)			
IT	Fatty acids, esters RL: USES (Uses) (branched, esters, glycidyl alc., epoxy resin-polyester electrophoretic coatings contg., for cans)			
IT	Coating materials (electrophoretic, carboxylated polyester-epoxy resin reaction products and crosslinking agents, for cans)			
IT	7429-90-5, uses and miscellaneous RL: USES (Uses) (cans, electrophoretic coatings for, epoxy resin-polyesters as)			
IT	552-30-7D, polymers with glycidyl versatate, reaction products with epoxy			

resins 25068-38-6D, reaction products with carboxylated polyesters 25586-20-3D, Acrylic acid-butyl acrylate-styrene copolymer, reaction products with epoxy resins and phenolic resins 64112-55-6D, Adipic acid-isophthalic acid-neopentyl glycol-trimellitic anhydride-trimethylolpropane copolymer, reaction products with epoxy resins

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, electrophoretic, for cans)

IT 9003-08-1, Formaldehyde-melamine copolymer 25085-75-0, Bisphenol A-formaldehyde copolymer

RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for electrophoretic coatings for cans)

IT 115341-59-8

RL: USES (Uses)
(electrophoretic coatings for cans)

IT 64112-55-6D, Adipic acid-isophthalic acid-neopentyl glycol-trimellitic anhydride-trimethylolpropane copolymer, reaction products with epoxy resins

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, electrophoretic, for cans)

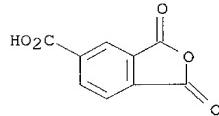
RN 64112-55-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 552-30-7

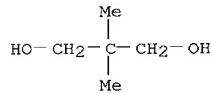
CMF C9 H4 O5



CM 2

CRN 126-30-7

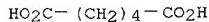
CMF C5 H12 O2



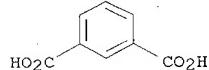
CM 3

CRN 124-04-9

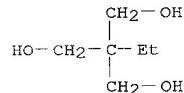
CMF C6 H10 O4



CM 4

CRN 121-91-5
CMF C8 H6 O4

CM 5

CRN 77-99-6
CMF C6 H14 O3

L29 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1978:581336 HCAPLUS
 DN 89:181336
 TI Thermosetting coating composition
 IN Kraft, Kurt; Walz, Gerd; Wirth, Thaddaeus
 PA Hoechst A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 27 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC C09D003-64
 CC 42-9 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 55

FAN.CNT 2	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 2707018	A1	19780831	DE 1977-2707018	19770218	
DE 2707018	C2	19870319			
CH 635610	A	19830415	CH 1978-1556	19780213	
US 4208488	A	19800617	US 1978-877868	19780215	
CA 1104746	A1	19810707	CA 1978-296888	19780215	
BE 864093	A1	19780817	BE 1978-185286	19780217	
SE 7801875	A	19780818	SE 1978-1875	19780217	
DK 7800729	A	19780819	DK 1978-729	19780217	

NO 7800557	A	19780821	NO 1978-557	19780217
NL 7801853	A	19780822	NL 1978-1853	19780217
JP 53104632	A2	19780912	JP 1978-16630	19780217
JP 62051986	B4	19871102		
FR 2381087	A1	19780915	FR 1978-4534	19780217
FR 2381087	B1	19801219		
BR 7800979	A	19781010	BR 1978-979	19780217
ZA 7800933	A	19790228	ZA 1978-933	19780217
AT 7801184	A	19791015	AT 1978-1184	19780217
AT 356778	B	19800527		
GB 1590351	A	19810603	GB 1978-6430	19780217
SU 1037845	A3	19830823	SU 1978-2579904	19780217

PRAI DE 1977-2707018 19770218
DE 1977-2757533 19771223

AB Thermosetting coating compns. which are highly reactive and can be applied as powders or solns. contain hydroxylated or epoxidized oligomers and a trimellitic acid (I)-contg. polycarboxylic acid mixt. which contains I partial esters. Thus, 427 parts of a 1:2:2 1,2-propanediol-I anhydride mixt. contg. I anhydride 9.4, bis(ester anhydride) 50.2, and oligomers 40.4% was dissolved in 427 parts BuO(CH₂)₂OAc, heated to 80.degree., treated with 36 parts water, and heated 3 h at 60-80.degree., giving a 52% solids soln. of the mixed CO₂H-substituted reaction product (A). A 70% xylene soln. of an oil-free polyester from trimethylolpropane 550, 1,6-hexanediol 100, neopentyl glycol 1000, phthalic anhydride 1150, and adipic acid 740 parts was mixed in a ratio of 75:25 (as solids) with the A soln., mixed with an equal amt. (on solids) of TiO₂, dild. to sprayable viscosity with BuO(CH₂)₂OAc, and sprayed on a degreased steel sheet, giving a coating suitable as a leveling layer between primer and topcoat or as a rapid curing coating, e.g. 1-3 min at 200-50.degree..

ST hydroxylated polyester thermosetting coating; steel thermosetting coating; trimellitate oligomer crosslinker coating; carboxylated oligomer crosslinker coating

IT Crosslinking agents
(trimellitic acid partial esters, for thermosetting epoxidized or hydroxylated oligomers)

IT Adhesives
(hot-melt, epoxidized or hydroxylated oligomers, trimellitic acid partial esters as crosslinking agents for)

IT Coating materials
(thermosetting, epoxidized or hydroxylated oligomers contg. trimellitic acid ester mixts.)

IT 25068-38-6 63814-82-4 64385-79-1
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, crosslinking agents for, trimellitic acid partial esters as)

IT 43011-20-7D, hydrolyzed 59480-26-1D, hydrolyzed 63948-88-9D,
hydrolyzed 68183-37-9D, hydrolyzed 68183-38-0D, hydrolyzed 68183-39-
1D, hydrolyzed 68183-40-4D, hydrolyzed

RL: USES (Uses)
(oligomeric, crosslinking agents, for epoxidized or hydroxylated oligomeric coating materials)

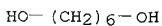
IT 64385-79-1
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, crosslinking agents for, trimellitic acid partial esters as)

RN 64385-79-1 HCAPLUS

CN Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol,
2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 1,6-hexanediol and
1,3-isobenzofurandione (9CI) (CA INDEX NAME)

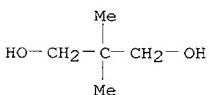
has all components

CM 1

CRN 629-11-8
CMF C6 H14 O2

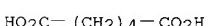
polyol

CM 2

CRN 126-30-7
CMF C5 H12 O2

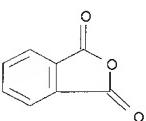
neopentyl glycol

CM 3

CRN 124-04-9
CMF C6 H10 O4

adipic

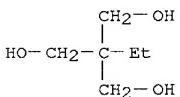
CM 4

CRN 85-44-9
CMF C8 H4 O3

phthalic anhydride

CM 5

CRN 77-99-6
CMF C6 H14 O3



Trimethylolpropanol

L29 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1978:154504 HCAPLUS

DN 88:154504

TI Powder coating composition

IN Diefenbach, Horst

PA BASF A.-G., Fed. Rep. Ger.

SO Ger. Offen., 13 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09D003-72

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 59

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 2633385	A1	19780126	DE 1976-2633385	19760724
PRAI DE 1976-2633385		19760724		

AB Powder coating compns. that can be crosslinked at 150-200.degree. and which liberated a nonpolluting byproduct into the environment during crosslinking contain .gtoreq.1 hydroxyl group-contg. resin (OH no. 30-200, glass temp. 35-95, av. mol. wt. 1,000-10,000) and .gtoreq.1di- or polyacyl isocyanate, capped with an aliph. monoalkanol, optionally contg. .gtoreq.1 ether groups. Thus, 1:10:19:30:40 acrylic acid-Bu acrylate-hydroxypropyl acrylate-Me methacrylate-styrene copolymer [52522-02-8] (K value 23, 3% soln. in Me2CO) 228.7, [BuO2CNHCO(CH2)2]2 [66065-44-9] 56.3, bisphenol A epoxy resin (epoxide equiv. 450-500, OH no. 180) 15, poly(Bu acrylate) 3, finely divided silicic acid 2, and TiO2 195 parts were mixed in a continuous kneader at 100.degree.. The resulting melt was cooled, milled to a powder of particle size 90 .mu.m, electrostatically sprayed on degreased steel sheet, and hardened 30 min at 160.degree. to give a 100 .mu.m coating with pencil hardness 154, Erichsen value 0.3, and bending test value 2-3.

ST powder coating; hydroxy group contg copolymer coating; diisocyanate alc capped coating; epoxy powder coating; air pollution free powder coating

IT Urethane polymers, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, powder, from carbamates and hydroxylated polymers)

IT Air pollution
(prevention of, in manuf. of coatings from powders contg. hydroxylated polymers and carbamates)

IT Coating materials
(powder, carbamate-hydroxylated polymer, with reduced crosslinking temp. and air pollution tendency)

IT 52522-02-8

RL: USES (Uses)
(coatings contg. bisphenol A epoxy resins, carbamates and, powder)

IT 66065-42-7 66065-44-9

RL: USES (Uses)

(coatings contg. bisphenol A epoxy resins, hydroxylated polymers and, powder)

IT 35561-07-0

RL: USES (Uses)
(coatings contg. carbamates and, powder)

IT 80-05-7D, epoxy resin derivs.

RL: USES (Uses)
(coatings contg. carbamtaes, hydroxylated polymers and, powder)

IT 66065-43-8

RL: USES (Uses)
(coatings contg. polyesters and, powder)

IT 35561-07-0

RL: USES (Uses)
(coatings contg. carbamates and, powder)

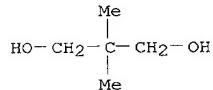
RN 35561-07-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

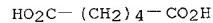
CMF C5 H12 O2



CM 2

CRN 124-04-9

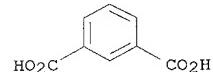
CMF C6 H10 O4



CM 3

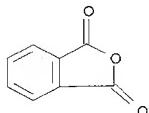
CRN 121-91-5

CMF C8 H6 O4

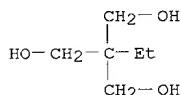


CM 4

CRN 85-44-9
 CMF C8 H4 O3



CM 5
 CRN 77-99-6
 CMF C6 H14 O3



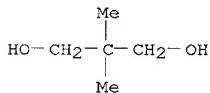
L29 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1975:412372 HCAPLUS
 DN 83:12372
 TI Polyester powder coatings
 IN Dawkins, Peter J.; Arkle, Keith P.; Derbyshire, Arnold
 PA Briggs and Townsend Ltd.
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC C09D
 CC 42-9 (Coatings, Inks, and Related Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2429517	A1	19750130	DE 1974-2429517	19740620
	GB 1450414	A	19760922	GB 1973-29634	19740620
	FR 2234357	A1	19750117	FR 1974-21618	19740621
PRAI	GB 1973-29634		19730621		
AB	Thermosetting, 1-component powder coatings are prep'd. by reaction of OH-terminated polyesters with blocked polyisocyanates. Thus, cyclohexyl (3-isocyanato-4-methylphenyl)carbamate [55250-76-5] (prep'd. from 19.385 g TDI and 11.141 g alc.) is heated at 100-150.degree. with 100 g 2:3:6.66:2:1.74 adipic acid-isophthalic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane polymer [35561-07-0] (OH no. 125, softening point apprx.25.degree.) and 0.25 g Bu2Sn dilaurate to give a brittle solid, m. 70.degree.. The product is mixed at 150.degree. with pigments, ground, electrostatically coated on metals, and cured 30 min at 200.degree. to give 25-100 .mu. coatings which can be bent 170.degree. without cracking.				
ST	polyester powder coating; crosslinking powder coating; isocyanate blocked				

IT crosslinker; TDI blocked crosslinker; cyclohexanol blocked TDI
IT Crosslinking agents
(blocked isocyanates, for polyester powder coatings)
IT Coating materials
(polyesters, contg. blocked isocyanates, for powder coating)
IT 55250-76-5
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for polyester powder coatings)
IT 25669-13-0 35561-07-0
RL: USES (Uses)
(powder coatings, contg. blocked isocyanate crosslinkers)
IT 35561-07-0
RL: USES (Uses)
(powder coatings, contg. blocked isocyanate crosslinkers)
RN 35561-07-0 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,
2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and
1,3-isobenzofurandione (9CI) (CA INDEX NAME)

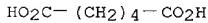
CM 1

CRN 126-30-7
CMF C5 H12 O2



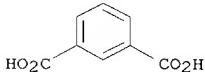
CM 2

CRN 124-04-9
CMF C6 H10 O4



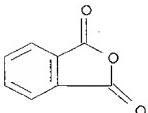
CM 3

CRN 121-91-5
CMF C8 H6 O4

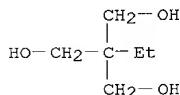


CM 4

CRN 85-44-9
CMF C8 H4 O3



CM 5
CRN 77-99-6
CMF C6 H14 O3



```
=> d que
L5      14850 SEA FILE=REGISTRY ABB=ON 77-99-6/CRN
L7      16127 SEA FILE=REGISTRY ABB=ON 126-30-7/CRN
L9      28693 SEA FILE=REGISTRY ABB=ON 124-04-9/CRN
L10     1811  SEA FILE=REGISTRY ABB=ON L5 AND L7 AND L9
L13     171045 SEA FILE=REGISTRY ABB=ON POLYESTER/PCT
L24     285   SEA FILE=REGISTRY ABB=ON L10 AND PHTHAL?
L25     268   SEA FILE=REGISTRY ABB=ON L13 AND L24
L26     48    SEA FILE=REGISTRY ABB=ON L25 AND 5/NC
L27     167   SEA FILE=HCAPLUS ABB=ON L26
L28     149   SEA FILE=HCAPLUS ABB=ON L27 AND COATING?/SC
L29     10    SEA FILE=HCAPLUS ABB=ON L28 AND CAN#
L30     6     SEA FILE=HCAPLUS ABB=ON L27 AND CAN#(3A)COAT?
L35     0     SEA FILE=HCAPLUS ABB=ON (L29 OR L30) NOT L29
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=> d que
L5      14850 SEA FILE=REGISTRY ABB=ON 77-99-6/CRN
L6      1   SEA FILE=REGISTRY ABB=ON "NEOPENTYL GLYCOL"/CN
L7      16127 SEA FILE=REGISTRY ABB=ON 126-30-7/CRN
L8      1   SEA FILE=REGISTRY ABB=ON "ADIPIC ACID"/CN
L9      28693 SEA FILE=REGISTRY ABB=ON 124-04-9/CRN
L10     1811  SEA FILE=REGISTRY ABB=ON L5 AND L7 AND L9
L13     171045 SEA FILE=REGISTRY ABB=ON POLYESTER/PCT
L24     285   SEA FILE=REGISTRY ABB=ON L10 AND PHTHAL?
L25     268   SEA FILE=REGISTRY ABB=ON L13 AND L24
L26     48    SEA FILE=REGISTRY ABB=ON L25 AND 5/NC
L27     167   SEA FILE=HCAPLUS ABB=ON L26
L28     149   SEA FILE=HCAPLUS ABB=ON L27 AND COATING?/SC
L29     10    SEA FILE=HCAPLUS ABB=ON L28 AND CAN#
```

L36 1 SEA FILE=REGISTRY ABB=ON 77-99-6
 L37 5540 SEA FILE=HCAPLUS ABB=ON L36
 L38 3660 SEA FILE=HCAPLUS ABB=ON L6
 L39 11851 SEA FILE=HCAPLUS ABB=ON L8
 L40 223 SEA FILE=HCAPLUS ABB=ON L37 AND L38 AND L39
 L42 4 SEA FILE=HCAPLUS ABB=ON L40 AND CAN#(2A) COAT?
 L43 925 SEA FILE=HCAPLUS ABB=ON L36/DP
 L44 1 SEA FILE=REGISTRY ABB=ON 126-30-7
 L45 1 SEA FILE=REGISTRY ABB=ON 124-04-9
 L46 495 SEA FILE=HCAPLUS ABB=ON L44/DP
 L47 865 SEA FILE=HCAPLUS ABB=ON L45/DP
 L48 63 SEA FILE=HCAPLUS ABB=ON L43 AND L46 AND L47
 L49 44 SEA FILE=HCAPLUS ABB=ON L48 AND COATING?/SC
 L50 18 SEA FILE=HCAPLUS ABB=ON L49 AND (CAN# OR ALUMINUM OR TIN OR
 METAL?)
 L53 29 SEA FILE=HCAPLUS ABB=ON L27 AND (CAN# OR ALUMINUM OR TIN OR
 METAL?) (4A) COAT?
 L54 49 SEA FILE=HCAPLUS ABB=ON L42 OR L50 OR L53
 L55 42 SEA FILE=HCAPLUS ABB=ON L54 NOT L29
 L56 26 SEA FILE=HCAPLUS ABB=ON L55 AND COMPOSITION?

=> d 156 all 1-26 hitstr

L56 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:68819 HCAPLUS
 DN 138:138898

TI UV-curable coating compositions for metallic

cans

IN Takami, Seiji; Hidaka, Takahiro
 PA Kansai Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

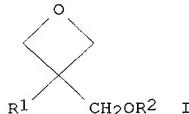
IC ICM C09D171-00
 ICS B05D003-06; B05D007-14; B05D007-24; C08G065-18; C09D005-00;
 C09D163-00; C09D163-08; C09D201-06

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003026993	A2	20030129	JP 2001-211485	20010712
PRAI JP 2001-211485		20010712		

GI

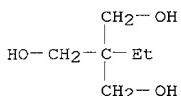


AB Title compns., with good adhesion to printing inks and clear coats,
 contain 100 parts blends of 1-80% oxetanes I [R1 = H, F, Cl-6]

(cyclo)alkyl, C1-6 (cyclo) fluorocalkyl, aryl, allyl, aralkyl, furyl, thiienyl; R2 = C6-20 alkyl or alkenyl and 20-99% I-excluded cationic polymerizable compds., 0.01-20 parts UV-induced cationic polymn. initiators, and 1-30 parts stearic acid-treated Al powders with av. diam. of 1-50 .mu.m. A steel plate was coated with a compn. contg. 3-ethyl-3-hydroxymethyloxetane 30, 3-ethyl-3-n-octyloxymethyloxetane 10, Cyra cure UVR 6110 50, CAT 001 (fatty acid-modified epoxy resin) 10, Cyra cure UVI 6990 5, PI 2074 1, and Hi-Print 30T (stearic acid-treated Al flakes) 15 parts, UV-cured to form a metallic film, then printed with an alkyd resin ink (to cover 50% of metallic film area), totally covered with an aq. clear contg. acrylic styrene resin, and baked at 200.degree. for 2 min to form a clear film showing pencil hardness 3 H initially and after retort treatment (in 125.degree. water, 30 min) and good adhesion before and after retort treatment.

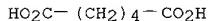
- ST UV curable oxetane epoxy resin **coating metal cans**; cationic polymn oxetane epoxy resin UV curable coating; ink adhesion **metallic** oxetane epoxy resin coating; clear topcoat adhesion **metallic** oxetane epoxy resin coating
- IT Coating materials
(UV-curable; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, clear topcoats; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Polyethers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(epoxy; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Linseed oil
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(linseed oil-based alkyd resins, printing inks; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Alkyd resins
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(linseed oil-based, printing inks; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Cans
(**metallic**; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Epoxy resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 104558-95-4, Cyra cure UVI 6990 178233-72-2, PI 2074
RL: CAT (Catalyst use); USES (Uses)

- (UV-curable metallic oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for metal cans)
- IT 2386-87-0DP, (3,4-Epoxy cyclohexyl)methyl 3,4-epoxycyclohexanecarboxylate, polymers with epoxidized polybutadiene and 3-ethyl-3-dodecyloxymethyloxetane 9003-17-2DP, Polybutadiene, epoxidized, polymers with 3-ethyl-3-dodecyloxymethyloxetane and (3,4-epoxycyclohexyl)methyl 3,4-epoxycyclohexanecarboxylate 298695-61-1P 403648-79-3DP, polymers with epoxidized polybutadiene and (3,4-epoxycyclohexyl)methyl 3,4-epoxycyclohexanecarboxylate 491608-77-6P 491851-56-0P 491851-57-1P 491851-58-2P 491851-59-3P 491851-61-7P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (UV-curable metallic oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for metal cans)
- IT 491845-99-9, High Print HP 30T 491846-48-1, High Print HP 50T
RL: TEM (Technical or engineered material use); USES (Uses)
- (UV-curable metallic oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for metal cans)
- IT 491608-78-7P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (clear topcoats; UV-curable metallic oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for metal cans)
- IT 77-99-6DP, Trimethylolpropane, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids 85-44-9DP, Phthalic anhydride, polymers with diacid and polyhydric alcs. and linseed oil fatty acids 124-04-9DP, Adipic acid, polymers with anhydrides and polyhydric alcs. and linseed oil fatty acids 126-30-7DP, Neopentyl glycol, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (printing inks; UV-curable metallic oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for metal cans)
- IT 77-99-6DP, Trimethylolpropane, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids 124-04-9DP, Adipic acid, polymers with anhydrides and polyhydric alcs. and linseed oil fatty acids 126-30-7DP, Neopentyl glycol, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (printing inks; UV-curable metallic oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for metal cans)
- RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)

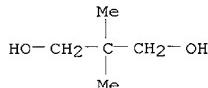


RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:428961 HCAPLUS

DN 137:21536

TI Clear lacquer coat having two layers for metal strips
for production of automobile body parts

IN Neppl, Bernhard; Boysen, Johannes

PA Bollig & Kemper GmbH & Co. Kg, Germany

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C08G018-68

ICS C08G018-62; C08G018-40

CC 42-2 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044237	A1	20020606	WO 2001-DE4480	20011130
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10059856	A1	20020718	DE 2000-10059856	20001130
	AU 2002019000	A5	20020611	AU 2002-19000	20011130
	EP 1348001	A1	20031001	EP 2001-998575	20011130
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	DE 2000-10059856	A	20001130		
	WO 2001-DE4480	W	20011130		
AB	A clear lacquer coat was obtained by: (I) application of a non-pigmented intermediate lacquer to a substrate for coating; (II) crosslinking the intermediate lacquer to form an intermediate lacquer coat; (III) application of an non-pigmented finishing lacquer to the intermediate lacquer coat and (IV) crosslinking the finishing lacquer, whereby the				

intermediate lacquer coat has a greater flexibility than finishing lacquer coat. This clear lacquer coat was applied to strips of metal in the manuf. of precoated metal strips with good appearance and improved coating flexibility in prodn. of automobile body parts. A typical intermediate layer was manufd. from a 35.2:303.1:17.6:254.6:8.1 adipic acid-hexahydrophthalic anhydride-maleic anhydride-neopentyl glycol-trimethylolpropane copolymer, and a typical top layer was manufd. from compn. contg. 2.3:206.3:284.5:87.6 acrylic acid-2-hydroxyethyl methacrylate-isobornyl methacrylate-Veova 9 copolymer 360, Lumiflon LF 552 (fluoropolymer, 60% soln.) 140, Desmodur BL 3175 150, Vestanat B 1370 175, Tinuvin 1130 20, Tinuvin 292 10, flow control agent 3, dibutyltin laurate 2, and diethylene glycol Bu ether acetate 40 g and dild. with 10 part Solvesso 150.

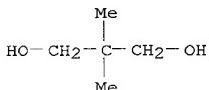
- ST bilayer clearcoat metal strip automobile body; fluoropolymer bilayer clearcoat metal strip; vinyl neononanoate copolymer polyisocyanate crosslinked bilayer clearcoat metal strip; isobornyl methacrylate copolymer polyisocyanate crosslinked bilayer clearcoat metal strip; hydroxyethyl methacrylate copolymer polyisocyanate crosslinked bilayer clearcoat metal strip; hydroxy acrylic polyisocyanate crosslinked bilayer clearcoat metal strip; trimethylolpropane polyester bilayer clearcoat metal strip; maleate polyester bilayer clearcoat metal strip; neopentyl glycol polyester bilayer clearcoat metal strip; hexahydrophthalate polyester bilayer clearcoat metal strip; adipate polyester bilayer clearcoat metal strip
- IT Coating materials
(acid-resistant; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Coating materials
(alkali-resistant; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Automobiles
(bodies; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Transparent materials
(coatings; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Coating materials
(flexible; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Coating materials
(multilayer; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Coating materials
(solvent-resistant; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Coating materials
(transparent; clear lacquer coat having two layers for metal strips for prodn. of automobile body parts)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(unsatd., flexible intermediate layer; clear lacquer coat having two layers for metal strips for prodn. of automobile

- body parts)
- IT Coating materials
(water-resistant; clear lacquer **coat** having two layers for metal strips for prodn. of automobile body parts)
- IT 434312-90-0P, Acrylic acid-2-hydroxyethyl methacrylate-isobornyl methacrylate-Veova 9 copolymer
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(coating precursor; clear lacquer **coat** having two layers for metal strips for prodn. of automobile body parts)
- IT 434941-44-3P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cured coating; clear lacquer **coat** having two layers for metal strips for prodn. of automobile body parts)
- IT 434312-88-6P, Adipic acid-hexahydrophthalic anhydride-maleic anhydride-neopentyl glycol-trimethylolpropane copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(flexible intermediate layer; clear lacquer **coat** having two layers for metal strips for prodn. of automobile body parts)
- IT 7429-90-5, **Aluminum**, miscellaneous
RL: MSC (Miscellaneous)
(substrate; clear lacquer **coat** having two layers for metal strips for prodn. of automobile body parts)
- RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
(1) Carson, D; US 4720405 A 1988 HCPLUS
(2) Fpg Ind Ohio Inc; WO 9931186 A 1999 HCPLUS
- IT 434312-88-6P, Adipic acid-hexahydrophthalic anhydride-maleic anhydride-neopentyl glycol-trimethylolpropane copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(flexible intermediate layer; clear lacquer **coat** having two layers for metal strips for prodn. of automobile body parts)
- RN 434312-88-6 HCPLUS
- CN Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2,5-furandione and hexahydro-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

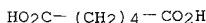
CMF C5 H12 O2



CM 2

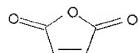
CRN 124-04-9

CMF C6 H10 O4



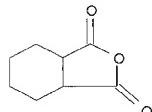
CM 3

CRN 108-31-6
CMF C4 H2 O3



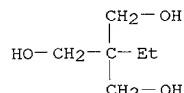
CM 4

CRN 85-42-7
CMF C8 H10 O3



CM 5

CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:816238 HCAPLUS
DN 135:359210
TI Aqueous metallic coating compositions for automobile
bodies
IN Yoshikawa, Manabu; Sasaki, Shigeyuki; Egusa, Hisafumi; Umakoshi, Atsuo
PA Nippon Paint Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

IC ICM C09D171-00
 ICS C09D005-02; C09D005-29; C09D133-06; C09D167-00; C09D167-08
 CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001311043	A2	20011109	JP 2001-50262	20010226	
GB 2360783	A1	20011003	GB 2001-4263	20010221	
US 2002007769	A1	20020124	US 2001-791849	20010226	
PRAI JP 2000-49808	A	20000225			
AB Title compns., useful in 2-coat-1-bake process, contain pre-dispersed pastes of org. solvents, glossy pigments, and polyether-polyols having av. primary OH groups of .gtoreq.0.02 and water tolerance value of .gtoreq.2.0. A middle compn.-coated, cationic compn -electrodeposited, and phosphated steel plate was coated with an aq. compn. contg. dimethylethanolamine (I), acrylamide-Et acrylate (II)-Me acrylate-2-hydroxyethyl methacrylate (III)-methacrylic acid (IV)-Aqualon HS 10-Adeka Reasoap NE 20 copolymer I salt, Cymel 204, II-III-IV-Me methacrylate copolymer I salt, III-IV-Bu acrylate-2-ethylhexyl methacrylate-styrene-Phosmer PP copolymer, and pre-dispersed paste (contg. Al paste, Primepol PX 1000, and 2-ethylhexyl glycol), pre-heated, topcoated with Orga TO 563 clear, and baked at 140.degree. for 30 min to form a film showing good warm water resistance and L value of 82%.					
ST glossy pigment org solvent polyether polyol predispersed paste; automobile body aq metallic base coating					
IT Polyesters, uses					
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-aminoplast-; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)					
IT Aminoplasts					
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyester-; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)					
IT Polyurethanes, uses					
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyether-; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)					
IT Polyethers, uses					
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyurethane-; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)					
IT Polyethers, uses					
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)					
IT Coconut oil					
RL: RCT (Reactant); RACT (Reactant or reagent)					

(alkyd resin from; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Aminoplasts
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Automobiles
(bodies; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Polyethers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(hydroxy-contg.; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Solvents
(org.; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Coating materials
(water-resistant; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT **77-99-6DP**, Trimethylolpropane, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 85-44-9DP, Phthalic anhydride, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 108-01-0DP, Dimethylethanolamine, salts with polymers from OH-contg. acrylic resins and polyether-polyols and coconut oil alkyd resins and COOH-contg. acrylic resins and phosphate-contg. acrylic resins 121-91-5DP, Isophthalic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 124-04-9DP, Adipic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 126-30-7DP, Neopentyl glycol, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 4767-03-7DP, Dimethylolpropionic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 74172-16-0DP, Ethyl acrylate-methyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid copolymer dimethylethanolamine salt, polymers with polyether-polyols and coconut oil alkyd resins and OH-contg. acrylic resins 372111-61-0P 372111-63-2P, acrylamide-ethyl acrylate-methyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-Aqualon HS 10-Adeka Reasoap NE 20-polyoxypropylene copolymer dimethylethanolamine salt 372111-65-4DP, polymers with polyether-polyols and coconut oil alkyd

resins and COOH-contg. acrylic resins 372166-28-4DP, Primepol PX 1000, polymers with coconut oil alkyd resins and COOH-contg. acrylic resins and OH-contg. acrylic resins, salt with dimethylethanolamine 372178-75-1P, acrylamide-butyl acrylate-ethyl acrylate-methyl acrylate-2-ethylhexyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene-Aqualon HS 10-Adeka Reasoap NE 20-Primepol PX 1000-Phosmer PP copolymer dimethylethanolamine salt 372178-77-3P 372178-79-5P, acrylamide-ethyl acrylate-methyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-adipic acid-isophthalic acid-phthalic anhydride-dimethylolpropionic acid-neopentyl glycol-trimethylolpropane-formaldehyde-melamine-Aqualon HS 10-Adeka Reasoap NE 20-Primepol PX 1000 copolymer dimethylethanolamine salt 372519-09-0P 372948-25-9P, acrylamide-butyl acrylate-ethyl acrylate-methyl acrylate-2-ethylhexyl methacrylate-methacrylic acid-HMDI-methyl methacrylate-styrene-Aqualon HS 10-Adeka Reasoap NE 20-Sannix SP 750-Phosmer PP copolymer dimethylethanolamine salt

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT 94-96-2
RL: NUU (Other use, unclassified); USES (Uses)
(aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT 9003-08-1, Cymel 204
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

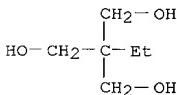
IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(paste; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT 220581-55-5, Orga TO 563 clear
RL: TEM (Technical or engineered material use); USES (Uses)
(topcoat; aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

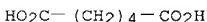
IT 77-99-6DP, Trimethylolpropane, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 124-04-9DP, Adipic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 126-30-7DP, Neopentyl glycol, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aq. metallic base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

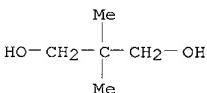
bodies)
 RN 77-99-6 HCAPLUS
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:38501 HCAPLUS
 DN 134:117224
 TI Thermally-curable water-thinned coating compositions and multilayered coating films therefrom useful for metal and plastic protection
 IN Masuda, Kazuaki; Osugi, Koji; Kuwashima, Teruaki; Harakawa, Takeshi
 PA Nippon Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM C08G018-79
 ICS C08G018-83; C09D175-12
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38, 55

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001011151	A2	20010116	JP 2000-49321	20000225
	GB 2350365	A1	20001129	GB 2000-10275	20000427
	US 6248819	B1	20010619	US 2000-562642	20000501
PRAI	JP 1999-124008	A	19990430		
	JP 2000-49321	A	20000225		
AB	The compns. having good water resistance and storage stability comprise a carboxy-contg. water-based polymer (A) and a hydrophilically modified polycarbodiimide (B) which has alternating units of carbodiimides and				

alternating units of polyols linking to the previous units by urethane bondings and is terminated with hydrophilic units on 2 ends by urethane bondings. Thus, heating 700 parts 4,4-dicyclohexylmethane diisocyanate in the presence of 14 parts 3-methyl-1-phenyl-2-phospholene-1-oxide at 180.degree. for 16 h, mixing 226.8 parts the resulting polycarbodiimide with 200 parts polypropylene glycol of Mn 2000 and heating at 90.degree. for 3 h in the presence of 0.16 parts dibutyltin dilaurate gave an isocyanate-terminated copolymer which was modified with polyoxyethylene mono(2-ethylhexyl) ether to give a B-type copolymer. Mixing 80 parts a copolymer of Et acrylate 250, 2-hydroxyethyl methacrylate 150, 2-hydroxyethyl acrylate 223, methacrylic acid 77 and styrene 300 parts with 20 parts B and 10 parts pigment paste gave a compn. which could be thinned with water.

- ST polyalkylene glycol ether hydrophilic modifier polycarbodiimide coating; water thinned hydrophilic modified polycarbodiimide multiblock copolymer coating; thermosetting hydrophilic modified polycarbodiimide multiblock copolymer coating; dicyclohexylmethane diisocyanate polycarbodiimide polyoxyethylene multiblock copolymer coating; polypropylene glycol carbodiimides multiblock copolymer coating; carboxy contg polymer polycarbodiimide alternating copolymer coating; acrylate polymer polycarbodiimide alternating copolymer coating; multilayered coating polycarbodiimide alternating copolymer
- IT Phenoxyl resins
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Fatty acids, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coco, alkyd resin compds.; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polysiloxanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(di-Me, hydroxyalkyl Me, ethoxylated, acrylic, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Coating materials
(multilayer; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polyesters, uses
Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbodiimide-, block, hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbonate-, block, coating vehicle; thermally-curable

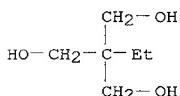
- water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polycarbonate-polyurethane-; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polyureas
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polycarbonate-polyurethane-; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polyoxalkylenes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyester-, block, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polycarbodiimides
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyester-, block, hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyoxyalkylene-, block, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polycarbodiimides
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyoxyalkylene-, block, hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polycarbonates, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurea-polyurethane-; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Polycarbonates, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurethane-, block, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Coating materials
(storage-stable; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Fatty acids, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

- (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(tall-oil, alkyd resins with polyols, coating; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Alkyd resins
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Coating materials
(thermosetting; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT Coating materials
(water-thinned; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 707-61-9, 3-Methyl-1-phenyl-2-phospholene-1-oxide
RL: CAT (Catalyst use); USES (Uses)
(carbodiimidization catalyst; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 77-99-6DP, Trimethylolpropane, alkyd resins 79-41-4DP,
Methacrylic acid, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 100-42-5DP, Styrene, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 121-91-5DP, Isophthalic acid, alkyd resins 124-04-9DP, Adipic acid, alkyd resins 126-30-7DP, Neopentyl glycol, alkyd resins 140-88-5DP, Ethyl acrylate, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 502-44-3DP, .epsilon.-Caprolactone, alkyd resins 552-30-7DP, Trimellitic anhydride, alkyd resins 818-61-1DP, 2-Hydroxyethyl acrylate, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 868-77-9DP, 2-Hydroxyethyl methacrylate, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 26915-97-9P 135991-20-7DP, Epol, alkyd resins 321181-75-3P, Ethyl acrylate-2-hydroxyethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 321181-76-4P, Acrylamide-ethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 321181-77-5P, Carbonic acid-1,6-hexanediol-dimethylolpropionic acid-hydrazine-isophorone diisocyanate block copolymer 321181-78-6P, Epikote EP-1256;ethyl acrylate;methacrylic acid-styrene graft copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 106717-32-2, Power Top U-100
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(electrodeposition coating; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 13463-67-7, Tipaque R-820, uses
RL: MOA (Modifier or additive use); USES (Uses)
(pigment; thermally-curable water-thinned coating compns. and

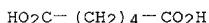
- multilayered coating films therefrom useful for metal and plastic protection)
- IT 53880-05-0DP, Isophorone diisocyanate polymer, reaction product polycarbonate diols and polyoxyethylene monolauryl ether 62948-28-1DP, 4,4'-Dicyclohexylmethane diisocyanate homopolymer, block copolymers with polycaprolactone diols, ethers with hydrophilic agents
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbodiimide-contg.; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 321308-52-5DP, Dicyclohexylmethane diisocyanate-ethylene oxide-propylene oxide block copolymer, alkyl ether
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbodiimide-contg. hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 9003-07-0, Polypropylene 12597-69-2, Steel, miscellaneous
RL: MSC (Miscellaneous)
(substrate; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 80-04-6DP, Hydrogenated bisphenol A, alkyd resins 9002-92-0DP, Polyethylene glycol monolauryl ether, reaction product with polycarbonate-polycarbodiimides 24980-41-4DP, Polycaprolactone, diols, block copolymers with polycarbodiimide, modified with hydrophilic agents 25248-42-4DP, Polycaprolactone, diols, block copolymers with polycarbodiimide, modified with hydrophilic agents 111460-07-2DP, Sodium hydroxypropanesulfonate, reaction products with polycaprolactone-polycarbodiimides
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 552-30-7DP, Trimellitic anhydride, alkyd resin
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 132229-81-3P, Desmodur N 75-2-ethylhexyl acrylate-2-ethylhexyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(top coating; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 77-58-7
RL: CAT (Catalyst use); USES (Uses)
(urethane formation catalyst; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)
- IT 77-99-6DP, Trimethylolpropane, alkyd resins 124-04-9DP,

Adipic acid, alkyd resins 126-30-7DP, Neopentyl glycol, alkyd resins
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for metal and plastic protection)

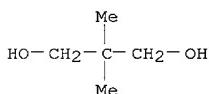
RN 77-99-6 HCAPLUS
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:38276 HCAPLUS
 DN 134:102328
 TI Laminated metallic coatings with good appearance and water resistance, and their manufacture
 IN Masuda, Kazuaki; Harakawa, Takeshi; Kuwashima, Teruaki; Takeuchi, Yutaka
 PA Nippon Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B05D001-36
 ICS B05D005-06; C09D005-00; C09D005-38; C09D179-00
 CC 42-10 (Coatings, Inks, and Related Products)
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001009357 GB 2351680 GB 2351680 US 2002086162	A2 A1 B2 A1	20010116 20010110 20030723 20020704	JP 2000-49807 GB 2000-10276 US 2000-562075	20000225 20000427 20000501

US 6428856 B2 20020806
PRAI JP 1999-124008 A 19990430
JP 2000-49807 A 20000225

AB The coating, useful for automobiles, are manufd. by sequential application of adq. intermediate coatings, adq. metallic base coatings, and clear coatings, wherein the intermediate and/or the metallic base coatings contain polycarbodiimides and carboxy group-contg. adq. polymers. An intermediate coating compn. contained adq. dispersion contg. a reaction product of poly(oxyethylene)-mono-2-ethylhexyl ether with 4,4'-MDI-polypolypropylene glycol block copolymer (A) 177, adq. dispersion contg. carboxyl group-contg. acrylic polymer dimethylaminoethanol salt 285, and carboxyl group-contg. acrylic polymer HN(C₂H₅OH)₂ salt varnish (B) 76 parts. A steel sheet was electrocoated with Power Top U 50, successively coated with the intermediate coating compn., a metallic coating compn. contg. A 40, B 119, and Alpaste 7160N (Al pigment paste) 15, Cymel 303 (methoxylated methylol melamine) 30 parts, a clear coating compn. contg. acrylic polymer varnish 100, U-Van 20SE 60 (butylated melamine resin) 38, and acrylic polyester particle 2.2 parts, and cured.

ST metallic coating multilayer polycarbodiimide water resistance; polyoxyalkylene polycarbodiimide acrylic metallic coating multilayer

IT Aminoplasts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, metallic coating; manuf. of laminated metallic coatings with good appearance and water resistance)

IT Polyesters, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-aminoplast-, clear coating; manuf. of laminated metallic coatings with good appearance and water resistance)

IT Aminoplasts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyester-, clear coating; manuf. of laminated metallic coatings with good appearance and water resistance)

IT Fatty acids, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coco, polymers with polyols, dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimide; manuf. of laminated metallic coatings with good appearance and water resistance)

IT Automobiles
(manuf. of laminated metallic coatings with good appearance and water resistance for)

IT Coating materials
(multilayer; manuf. of laminated metallic coatings with good appearance and water resistance)

IT Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbodiimide-polyurethane-, acrylic; manuf. of laminated metallic coatings with good appearance and water resistance)

IT Polyisocyanurates
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-, acrylic, clear coating; manuf. of laminated

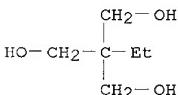
- metallic coatings with good appearance and water resistance)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyisocyanurate-, acrylic, clear coating; manuf. of laminated metallic coatings with good appearance and water resistance)
- IT Aminoplasts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers with polyesters and polyacrylates, clear coating; manuf. of laminated metallic coatings with good appearance and water resistance)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-polycarbodiimide-, acrylic; manuf. of laminated metallic coatings with good appearance and water resistance)
- IT Polycarbodiimides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-polyurethane-, acrylic; manuf. of laminated metallic coatings with good appearance and water resistance)
- IT 9003-08-1DP, U-Van 20SE 60, polymers with polyesters and polyacrylates 26761-45-5DP, Cardura E 10, reaction products with polyesters, polymers with polyacrylates and melamine resins 36179-96-1DP, Butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer, polymers with polyesters, polyacrylates, and melamine resins 80293-01-2DP, Azelaic acid-bishydroxyethyltaurine-neopentyl glycol-phthalic anhydride copolymer, reaction products with glycidyl versatate, polymers with polyacrylates and melamine resins 113812-59-2DP, Butyl acrylate-ethylene glycol dimethacrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer, polymers with polyesters, polyacrylates, and melamine resins 320397-74-8P, Butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene-Sumidur 3500 copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(clear coating; manuf. of laminated metallic coatings with good appearance and water resistance)
- IT 77-99-6DP, Trimethylolpropane, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 121-91-5DP, Isophthalic acid, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 124-04-9DP, Adipic acid, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 126-30-7DP, Neopentyl glycol, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 502-44-3DP, .epsilon.-Caprolactone, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 552-30-7DP, Trimellitic anhydride, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 26468-86-0DP, Polyethylene glycol mono-2-ethylhexyl ether, reaction products with MDI-polypropylene glycol copolymer, polymers with CO₂H-contg. polymers 135991-20-7DP, Epol (polyisoprene), polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 201139-72-2DP, 4,4'-MDI-polypropylene glycol block copolymer, reaction products with polyethylene glycol mono-2-ethylhexyl ether, polymers with CO₂H-contg. polymers 320385-83-9DP, Adeka Reasoap

NE 20-Aqualon HS 10-ethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl acrylate copolymer dimethylaminoethanol salt, polymers with modified polycarbodiimides and CO₂H-contg. acrylic polymers
320385-85-1DP, Acrylamide-butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer diethanolamine salt, polymers with modified polycarbodiimides and CO₂H-contg. acrylic polymers 320395-34-4DE, Hardlen M 128P, polymers with CO₂H-contg. polyesters and modified polycarbodiimides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manuf. of laminated metallic coatings with good appearance and water resistance)

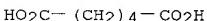
IT 200815-42-5P, Acrylamide-butyl acrylate-Cymel 303-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(metallic coating; manuf. of laminated metallic coatings with good appearance and water resistance)

IT 77-99-6DP, Trimethylolpropane, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 124-04-9DP, Adipic acid, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides 126-30-7DP, Neopentyl glycol, polymers with diols and dicarboxylic acids, CO₂H-contg. polypropylene, and modified polycarbodiimides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manuf. of laminated metallic coatings with good appearance and water resistance)

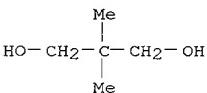
RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:1316974 HCAPLUS
 DN 132:323088

TI Manufacture of internally crosslinked nonaqueous resin dispersions, high-solid coating **compositions** based on them, and coating process

IN Azuma, Ichiro; Miokawa, Masasumi; Komasaki, Shigeru
 PA Dainippon Ink and Chemicals, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM C08F002-08
 ICS B05D007-24; C08F002-44; C09D005-00; C09D155-00; C09D157-00;
 C09D161-20; C09D167-02

CC 42-10 (**Coatings, Inks, and Related Products**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000136204	A2	20000516	JP 1998-310075	19981030
PRAI	JP 1998-310075		19981030		
AB	Mixts. of vinyl monomers and crosslinking monomers are copolymd. in org. solvents in which the monomers dissolve but product polymers do not dissolve in the presence of polyester-based dispersion stabilizers which dissolve in the solvents to give crosslinked particle dispersions. The coating compns. comprise org. solvent-sol. OH-contg. polyesters, the dispersions, and org. solvent-sol. amino resins. Two-coat-1-bake or 3-coat-1-bake process using the compns. as base coats, useful for metallic coating of automobile bodies, is claimed. Thus, isophthalic acid 250, adipic acid 220, hexahydrophthalic anhydride 110, neopentyl glycol 280, trimethylolpropane 160, and Cardura E 100 parts were polymd., dild. with LAWS and BuOH, and esterified with 3 parts glycidyl methacrylate to give a 65.8% dispersion stabilizer, 385 parts of which, xylene, heptane, an BuOH were added to a reactor in which Me methacrylate 100, Et acrylate 117, Bu acrylate 20, 2-hydroxyethyl acrylate 40, acrylonitrile 35, ethylene glycol dimethacrylate 18, and acrylic acid 10 parts were polymd. to give a 50.1% nonaq. resin dispersion.				
ST	crosslinked acrylic polymer nonaq dispersion coating; polyester dispersion stabilizer acrylic polymer crosslinked; automobile body metallic coating base coat				
IT	Fatty acids, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (C9-11-branched, glycidyl esters, polyesters; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)				
IT	Polyesters, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)				
IT	Automobiles (bodies; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)				
IT	Coating materials (dispersion, nonaq.; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)				
IT	Aminoplasts				

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers with polyesters and acrylic polymers; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT Coating process
(two-layer-one-bake; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT 77-99-6DP, Trimethylolpropane, polyesters 79-10-7DP, Acrylic acid, polymers with acrylic compds. and polyester methacrylate 80-62-6DP, Methyl methacrylate, polymers with acrylic compds. and polyester methacrylate 85-42-7DP, Hexahydrophthalic anhydride, polyesters 97-90-5DP, Ethylene glycol dimethacrylate, polymers with acrylic compds. and polyester methacrylate 106-91-2DP, Glycidyl methacrylate, reaction products with polyesters, polymers with acrylic compds. 107-13-1DP, Acrylonitrile, polymers with acrylic compds. and polyester methacrylate 121-91-5DP, Isophthalic acid, polyesters 124-04-9DP, Adipic acid, polyesters 126-30-7DP, Neopentyl glycol, polyesters 140-88-5DP, Ethyl acrylate, polymers with acrylic compds. and polyester methacrylate 141-32-2DP, Butyl acrylate, polymers with acrylic compds. and polyester methacrylate 629-11-8DP, 1,6-Hexanediol, polyesters 818-61-1DP, 2-Hydroxyethyl acrylate, polymers with acrylic compds. and polyester methacrylate 9003-08-1DP, Super Beckamine L 117-60, polymers with polyesters and acrylic polymers

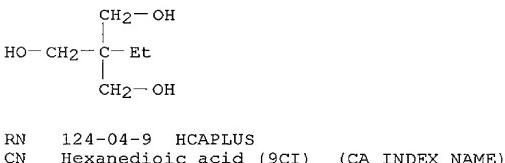
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT 77-99-6DP, Trimethylolpropane, polyesters 124-04-9DP, Adipic acid, polyesters 126-30-7DP, Neopentyl glycol, polyesters

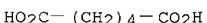
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

RN 77-99-6 HCAPLUS

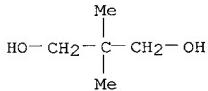
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1998:414785 HCAPLUS

DN 129:110174

TI Water-based polyester coating **compositions** formed on
metals as an intermediate layer to an automotive finish
 IN Nishi, Tadahiko; Takagi, Takeshi; Okude, Yoshitaka
 PA Nippon Paint Co., Ltd., Japan
 SO Eur. Pat. Appl., 16 pp.
 CODEN: EPXXDW

DT Patent

LA English

IC ICM C09D167-00

CC 42-7 (**Coatings, Inks, and Related Products**)
 Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 849341	A2	19980624	EP 1997-122562	19971219
	EP 849341	A3	19980902		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 10176136	A2	19980630	JP 1996-354881	19961219
	CA 2225085	AA	19980619	CA 1997-2225085	19971217
	US 5919856	A	19990706	US 1997-993410	19971218
PRAI	JP 1996-354881		19961219		

AB A water-based thermosetting coating **compn.** comprises a polyester resin having pendant carboxyl groups and a crosslinking agent, both dispersed in an aq. medium contg. a neutralizing base. The polyester resin is formed from 1-40% polyalkadienediol or a hydrogenated product thereof and 2-50% 2,2-bis(hydroxymethyl)alcanoic acid. Thus, an aq. **compn.** contg. the polyester (no.-av. mol. wt. 2770; OH no. 150, acid no. 50) from coconut oil, trimethylolpropane, 1,4-cyclohexanedicarboxylic acid, adipic acid, dimethylolbutanoic acid, Epol, and caprolactone, hexamethoxymelamine crosslinker, pigment, and p-toluenesulfonic acid gave a coating **compn.** having good water resistance (40.degree. for 10 days), crosshatch tape adhesion 100/100, good chip resistance, and pinhole free limit 60 .mu.m.

ST waterborne thermosetting polyester coating; dimethylolbutanoic acid polyester coating; melamine curable polyester coating; Epol polyester coating water dispersed; cyclohexanedicarboxylic acid polyester coating; caprolactone polyester coating water dispersed; chip water resistance polyester coating

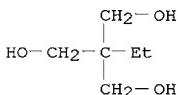
IT Coating materials
 (chip-resistant, water-resistant; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)

IT Coconut oil

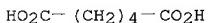
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP

- (Preparation); USES (Uses)
(reaction product with tricarboxylic acid-contg. polyester-polyalkylenediol, dimethylethanolamine salt; water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT Coating materials
(water-resistant, chip-resistant; water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT 83014-18-0, Acrylamide-butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(base coat binder; water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT 121934-24-5, Almatex NT-U 448; formaldehyde-melamine copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(base coat; water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT 183804-28-6, ACR 461-Dianal HR 554-formaldehyde-melamine copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(clear coat; water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT 12597-69-2, Steel, miscellaneous
RL: MSC (Miscellaneous)
(phosphate treated; water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT 77-99-6DP, Trimethylolpropane, polyester derivs., dimethylethanolamine salt 85-42-7DP, Hexahydrophthalic anhydride, polyester derivs., dimethylethanolamine salt 121-91-5DP, Isophthalic acid, polyester derivs., dimethylethanolamine salt 124-04-9DP, Adipic acid, polyester derivs., dimethylethanolamine salt 126-30-7DP, Neopentyl glycol, polyester derivs., dimethylethanolamine salt 502-44-3DP, .epsilon.-Caprolactone, polyester derivs., dimethylethanolamine salt 552-30-7DP, Trimellitic anhydride, polyester derivs., dimethylethanolamine salt 1076-97-7DP, 1,4-Cyclohexanedicarboxylic acid, polyester derivs., dimethylethanolamine salt 4767-03-7DP, Dimethylolpropionic acid, polyester derivs., dimethylethanolamine salt 56743-27-2DP, polyester derivs., dimethylethanolamine salt 87913-10-8DP, Polytail H, polyester derivs., dimethylethanolamine salt 88507-04-4DP, Polytail HA, polyester derivs., dimethylethanolamine salt 135991-20-7DP, Epol (polyisoprene), polyester derivs., dimethylethanolamine salt 151438-95-8DP, PIP, polyester derivs., dimethylethanolamine salt
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-based thermosetting polyester coating compns. formed on metals as an intermediate layer to an automotive finish)
- IT 77-99-6DP, Trimethylolpropane, polyester derivs., dimethylethanolamine salt 124-04-9DP, Adipic acid, polyester derivs., dimethylethanolamine salt 126-30-7DP, Neopentyl glycol, polyester derivs., dimethylethanolamine salt
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-based thermosetting polyester coating compns. formed on

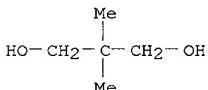
metals as an intermediate layer to an automotive finish)
RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:91143 HCAPLUS
Correction of: 1996:655493
DN 128:103400
Correction of: 125:278599
TI Correlation between network mechanical properties and physical properties in polyester-urethane coatings
AU Scanlan, James C.; Webster, Dean C.; Crain, Allen L.
CS Res. Lab., Eastman Chemical Co., Kingsport, TN, 37662-5150, USA
SO ACS Symposium Series (1996), 648(Film Formation in Waterborne Coatings), 222-234
CODEN: ACSMC8; ISSN: 0097-6156
PB American Chemical Society
DT Journal
LA English
CC 42-4 (Coatings, Inks, and Related Products)
AB The prepn. and functionality and mol.-wt. evaluation of polyester polyols from diacids were studied. The polyesters were formulated into clear coatings and cured with a polyfunctional isocyanate. Dynamic mech. and thermal anal. was used to characterize the network structure. The crosslink d. (XLD), calcd. from the measured rubber modulus, compares favorably to the value predicted by Miller-Macosko theory. Tg is modeled in terms of compn. and crosslink d. to +-.5.degree.. Hardness, as reflected by the room temp. modulus, is a functions of both Tg and XLD. The combination of hardness and flexibility can be optimized by combining low XLD with a high Tg-contributing monomer.
ST polyester polyol prepn; urethane polyester coating mech thermal

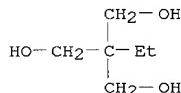
IT Chemical chains
 Coating materials
 Crosslink density
 Glass transition temperature
 (effects of crosslink d. and Tg on mech. and thermal properties of polyester-urethane coatings)

IT Polyurethanes, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polyester-, effects of crosslink d. and Tg on mech. and thermal properties of polyester-urethane coatings)

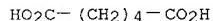
IT 77-99-6DP, Trimethylolpropane, polyurethanes 121-91-5DP,
 Isophthalic acid, polyurethanes, uses 124-04-9DP, Adipic acid,
 polyurethanes, uses 126-30-7DP, Neopentyl glycol, polyurethanes
 1076-97-7DP, 1,4-Cyclohexanedicarboxylic acid, polyurethanes
 96510-63-3DP, Desmodur N3390, polyurethanes
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (effects of crosslink d. and glass temp. on mech. and thermal properties of polyester polyurethane coatings)

IT 77-99-6DP, Trimethylolpropane, polyurethanes 124-04-9DP,
 Adipic acid, polyurethanes, uses 126-30-7DP, Neopentyl glycol,
 polyurethanes
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (effects of crosslink d. and glass temp. on mech. and thermal properties of polyester polyurethane coatings)

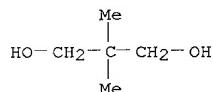
RN 77-99-6 HCPLUS
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCPLUS
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCPLUS
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



AN 1997:442880 HCAPLUS

DN 127:96702

TI High boiling point aromatic hydrocarbon solvents and their ink compositions for printing on metals

IN Hoshino, Hiroyuki; Sugisawa, Kunio; Togami, Yasuo

PA Nippon Petrochemicals Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

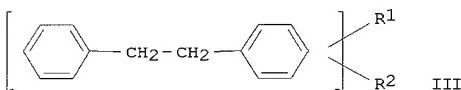
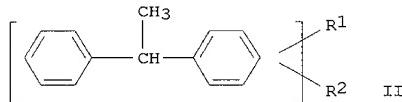
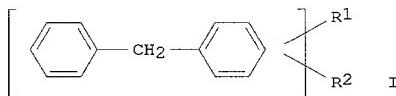
IC ICM C07C015-18

ICS C07C015-16; C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09157189	A2	19970617	JP 1995-346970	19951214
PRAI	JP 1995-346970		19951214		
OS	MARPAT 127:96702				
GI					



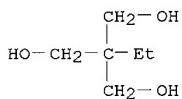
AB The solvents for the inks comprise dialkyldiarylalkanes I, II, and/or III ($R_1-R_2 = C_4$ alkyl). Thus, a solvent comprised di-sec-butylidiphenylmethane 53, di-sec-butylidiphenylethane(1,1) 27, and di-sec-butylidiphenylethane(1,2) 20%. A liq. alkyd resin with acid value 9.0 was obtained by transesterification of soybean fatty acid 200, trimethylolpropane 100, neopentyl glycol 160, adipic acid 130, and isophthalic acid 175 parts. An ink contg. the resin and the solvent was printed on Al can by dry offset process, top-coated with a water-based acrylic amino-type varnish, and baked at 200.degree. to give a product without misting.

ST arom hydrocarbon solvent ink metal printing; dialkyldiarylalkane solvent ink metal printing; alkylarylalkane solvent ink metal printing

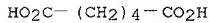
IT Inks
(dialkyldiarylalkanes as high b.p. solvents and their ink compns. for

printing on metals)

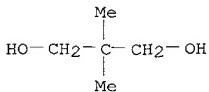
- IT Alkanes, uses
RL: NUU (Other use, unclassified); USES (Uses)
(dialkyldiarylalkanes as high b.p. solvents and their ink compns. for
printing on metals)
- IT Fatty acids, uses
RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(soya, alkyd resins, vehicles; dialkyldiarylalkanes as high b.p.
solvents and their ink compns. for printing on metals)
- IT 41237-26-7 191683-46-2 191683-47-3
RL: NUU (Other use, unclassified); USES (Uses)
(dialkyldiarylalkanes as high b.p. solvents and their ink compns. for
printing on metals)
- IT 77-99-6DP, reaction products with soybean fatty acids, neopentyl
glycol, adipic acid, and isophthalic acid 121-91-5DP,
1,3-Benzenedicarboxylic acid, reaction products with soybean fatty acids,
trimethylolpropane, neopentyl glycol, and adipic acid, uses
124-04-9DP, Adipic acid, reaction products with soybean fatty
acids, trimethylolpropane, neopentyl glycol, and isophthalic acid
126-30-7DP, reaction products with soybean fatty acids,
trimethylolpropane, adipic acid, and isophthalic acid 25950-34-9P,
Adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer
RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(vehicles; dialkyldiarylalkanes as high b.p. solvents and their ink
compns. for printing on metals)
- IT 77-99-6DP, reaction products with soybean fatty acids, neopentyl
glycol, adipic acid, and isophthalic acid 124-04-9DP, Adipic
acid, reaction products with soybean fatty acids, trimethylolpropane,
neopentyl glycol, and isophthalic acid 126-30-7DP, reaction
products with soybean fatty acids, trimethylolpropane, adipic acid, and
isophthalic acid
RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(vehicles; dialkyldiarylalkanes as high b.p. solvents and their ink
compns. for printing on metals)
- RN 77-99-6 HCPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1997:120880 HCAPLUS
 DN 126:132712
 TI Thermosetting water-thinned base coating compositions with good moisture resistance for automobiles, and their application
 IN Nakae, Yasuhiko; Uchiyama, Toshihiko; Terada, Takeshi; Okude, Yoshitaka
 PA Nippon Paint Co Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C09D167-02
 ICS C09D167-02; B05D001-36; C09D161-28
 CC 42-7 (Coatings, Inks, and Related Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08311396	A2	19961126	JP 1995-145246	19950519
PRAI	JP 1995-145246		19950519		
AB	Mixts. of (A) polyesters (acid value 5-50, OH value 20-250) contg. 1-30% OH-terminated polyalkadienes (av. d.p. 5-50) and/or hydrogenated polyalkadienes, (B) crosslinking agents, and (C) pigments are dissolved or dispersed in an aq. medium contg. sufficient bases to neutralize .gtoreq.50% of the CO ₂ H groups of A and including 5-20 equiv.% polybasic metal hydroxides. Substrates are base-coated with the compns., top-coated wet-on-wet with transparent compns., and cured to form multilayer coating films. Thus, coconut oil 155, trimethylolpropane 248, isophthalic acid 267, adipic acid 59, neopentyl glycol 33, Epol (av. d.p. 26) 41, trimellitic anhydride 40, and .epsilon.-caprolactone 77 parts were polynd. and mixed with 75 parts Solvesso 150 and 75 parts Bu Cellosolve to obtain a varnish with OH value 137, acid value 37, no.-av. mol. wt. 2850, and H ₂ O tolerance 0.8. A blend of the varnish 100, dimethylethanolamine 3.90, Ca(OH) ₂ 0.41, and H ₂ O 192.1 parts was mixed with Al paste 60-600 17.1, Cymel 212 33.3, and p-toluenesulfonic acid 0.5 part, applied to a Sn plate, and baked at 150.degree. for 30 min to show a good appearance.				
ST	polyalkadienediol polyester base coating automobile; water thinned polyester polyalkadienediol coating; multilayer coating automobile moisture resistance				
IT	Fatty acids, uses RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coco, esters with polyalkadienediol-based polyesters, alk. earth metal and amine salts; thermosetting water-thinned base coating compns. with good moisture resistance for automobiles)				
IT	Aminoplasts RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (crosslinkers; thermosetting water-thinned base coating compns. contg.				

- polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Butadiene rubber, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hydroxy-terminated, Poly bd-R 45HT, polyesters, coco fatty acid esters, alk. earth metal and amine salts; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Automobiles
(thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Alkyd resins
Polyesters, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Coating materials
(water-thinned; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 9003-17-2P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(butadiene rubber, hydroxy-terminated, Poly bd-R 45HT, polyesters, coco fatty acid esters, alk. earth metal and amine salts; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 9003-08-1, Melamine resin 173358-75-3, Cymel 212
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crosslinkers; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 7429-90-5, Aluminum, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(pigments; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 17194-00-2DP, Barium hydroxide, salts with polyalkadienediol-based polyesters
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts for automobiles)
- IT 77-99-6DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts 108-01-0DP, salts with polyalkadienediol-based polyesters 121-44-8DP, salts with

polyalkadienediol-based polyesters 121-91-5DP, 1,3-Benzenedicarboxylic acid, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts, uses 124-04-9DP, Hexanedioic acid, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts, uses 126-30-7DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts 502-44-3DP, 2-Oxepanone, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts 552-30-7DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts 1305-62-0DP, Calcium hydroxide (Ca(OH)_2), salts with polyalkadienediol-based polyesters, uses 1309-42-8DP, Magnesium hydroxide, salts with polyalkadienediol-based polyesters 186343-52-2DP, coco fatty acid esters, alk. earth metal and amine salts 186343-53-3DP, coco fatty acid esters, alk. earth metal and amine salts 186353-77-5DP, coco fatty acid esters, alk. earth metal and amine salts
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermosetting water-thinned base coating compns. contg.

polyalkadienediol-based polyester salts with good moisture resistance for automobiles)

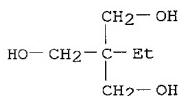
IT 77-99-6DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts 124-04-9DP, Hexanedioic acid, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts, uses 126-30-7DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth metal and amine salts
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermosetting water-thinned base coating compns. contg.

polyalkadienediol-based polyester salts with good moisture resistance for automobiles)

RN 77-99-6 HCPLUS

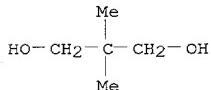
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)

$\text{HO}_2\text{C}- (\text{CH}_2)_4 - \text{CO}_2\text{H}$

RN 126-30-7 HCAPLUS
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:387774 HCAPLUS

DN 125:36057

TI Ink compositions for printing on metals with improved compatibility for overprint varnishes

IN Hashimoto, Yasuhiro; Yoshizawa, Hiroyuki; Taniguchi, Hayayuki; Okamoto, Katsutoshi

PA Sakata Inks, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08060061	A2	19960305	JP 1994-202451	19940826
PRAI	JP 1994-202451		19940826		
OS	MARPAT 125:36057				

AB The compns. comprise colorants, binder polymers, and org. solvents contg. 1-50% (on compn.) .gtoreq.1 ethoxylated and/or propoxylated YmXZn [X = (m + n)-valent residue of 3- to 12-membered satd. hydrocarbon ring, cyclohexene, or cyclohexadiene; Y = OH, hydroxalkyl; Z = alkyl; m = 1-2; n = 0-3] with adduct no. 0-40. Soybean-oil fatty acid 200, trimethylolpropane 100, neopentyl glycol 160, adipic acid 130, and isophthalic acid 175 parts were esterified to give an alkyd resin, 80 parts of which was mixed with 20 parts ethoxylated cyclohexanol (I) to give a vehicle. The vehicle 28, TiO2 50, Cymel 303 (melamine resin) 9, dibutylethanolamine 3, and I 10 parts were mixed to give a compn. (I content 15.6%) showing good misting resistance and fluidity and good compatibility for overprint varnishes.

ST ethoxylated cyclohexanol solvent ink metal printing; alkoxyated cyclohexanol solvent ink metal printing; alkyd resin binder metal printing ink; polyester binder metal printing ink; cyclic alc alkoxylated solvent printing ink

IT Solvents
 (alkoxyated cyclic alc.; for ink compns. contg. alkyd resin binders for printing on metals with improved compatibility for overprint varnishes)

IT Alkyd resins
 Polyesters, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (binders; for ink compns. for printing on metals with improved compatibility for overprint varnishes)

IT Inks
(polyester binders contg. alkoxylated cyclic alc. solvents for printing on metals with improved compatibility for overprint varnishes)

IT Alcohols, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(cyclic, alkoxylated, solvents; for ink compns. contg. alkyd resin binders for printing on metals with improved compatibility for overprint varnishes)

IT Fatty acids, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(soya, polymers, alkyd resins, binders; for ink compns. for printing on metals with improved compatibility for overprint varnishes)

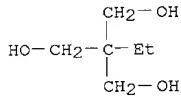
IT 72688-48-3P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binder; for ink compns. for printing on metals with improved compatibility for overprint varnishes)

IT 77-99-6DP, polymers with soybean-oil fatty acids, neopentyl glycol, adipic acid, isophthalic acid and Cymel 303 121-91-5DP, 1,3-Benzenedicarboxylic acid, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, adipic acid and Cymel 303 124-04-9DP, Hexanedioic acid, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, isophthalic acid and Cymel 303 126-30-7DP, Neopentyl glycol, polymers with soybean-oil fatty acids, trimethylolpropane, adipic acid, isophthalic acid and Cymel 303 9003-08-1DP, Cymel 303, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, adipic acid and isophthalic acid
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binders; for ink compns. for printing on metals with improved compatibility for overprint varnishes)

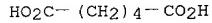
IT 32128-53-3 81545-51-9, Polypropylene glycol monocyclohexyl ether 106707-12-4 178120-25-7 178120-26-8
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(solvent; for ink compns. contg. alkyd resin binders for printing on metals with improved compatibility for overprint varnishes)

IT 77-99-6DP, polymers with soybean-oil fatty acids, neopentyl glycol, adipic acid, isophthalic acid and Cymel 303 124-04-9DP, Hexanedioic acid, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, isophthalic acid and Cymel 303 126-30-7DP, Neopentyl glycol, polymers with soybean-oil fatty acids, trimethylolpropane, adipic acid, isophthalic acid and Cymel 303 9003-08-1DP, Cymel 303, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, adipic acid and isophthalic acid
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binders; for ink compns. for printing on metals with improved compatibility for overprint varnishes)

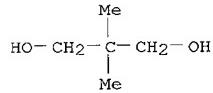
RN 77-99-6 HCPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1995:689894 HCAPLUS
DN 123:59000
TI Protective and/or decorative coating compositions containing hydroxylated polyesters for use in multilayer coatings
IN Hoffmann, Peter; Bruennemann, Michael
PA Basf Lacke + Farben AG, Germany
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C09D167-00
ICS B05D001-36; B05D003-00
ICA C09D005-38; C09D005-36; C09D005-28; C09D017-00; C09D007-12; C09D007-06;
C09D007-02; C08G063-181; C08G063-199; C08G063-20; G01N33-32
ICI C09D167-00, C09D101-10, C09D161-20, C09D175-06, C09D163-00
CC 42-8 (Coatings, Inks, and Related Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4327416	A1	19950216	DE 1993-4327416	19930814
ZA 9405583	A	19950307	ZA 1994-5583	19940728
WO 9505425	A1	19950223	WO 1994-EP2570	19940803
W: BG, BR, BY, CA, CZ, GE, HU, JP, KG, KZ, LT, LV, MD, PL, RO, RU, SI, SK, TJ, UA, US, UZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE CA 2168451	AA	19950223	CA 1994-2168451	19940803
BR 9407255	A	19960924	BR 1994-7255	19940803
EP 739394	A1	19961030	EP 1994-924838	19940803
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE JP 09501708	T2	19970218	JP 1994-506709	19940803

HU 75505	A2	19970528	HU 1996-324	19940803
HU 214788	B	19980528		
PRAI DE 1993-4327416		19930814		
WO 1994-EP2570		19940803		

AB The title compns., giving good metal effects when used as base layers, contain polyesters [wt.-av. mol. wt. (Mw) 40,000-200,000, polydispersity (P) >8] prepnd. from acids contg. .gtoreq.50% arom. dicarboxylic acids but .ltoreq.80% phthalic anhydride (I). A polyester (II) (Mw 105,000, P 35, OH no. 96.5) was prepnd. from neopentyl glycol 1038.0, trimethylolpropane 611.2, I 1264.6, and adipic acid 831.7 parts. A mixt. of 15% cellulose acetate butyrate (III) (36-42% butyrate, Mw 40,000) 27, 15% III (OAc content 2.5-4%, Mw 40,000) 6, wax 27, II 13, melamine resin 3, Al pigment 5, and solvents 44 parts gave a film which, after 7 days, had good adhesion and color tone.

ST polyester hydroxylated coating; metal effect coating; cellulose acetate butyrate coating; phthalate polyester coating; adipate polyester coating; neopentyl glycol polyester coating; trimethylolpropane polyester coating

IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(hydroxy-contg., protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

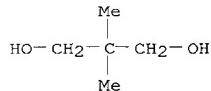
IT Coating materials
(metal-effect, protective and/or decorative coating compns.
contg. hydroxylated polyesters for use in multilayer coatings)
IT 9004-36-8, Cellulose acetate butyrate 25950-35-0, Adipic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane copolymer 35561-07-0
, Adipic acid-isophthalic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

IT 35561-07-0, Adipic acid-isophthalic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

RN 35561-07-0 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

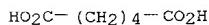
CM 1

CRN 126-30-7
CMF C5 H12 O2

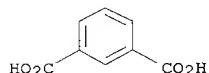


CM 2

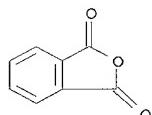
CRN 124-04-9
CMF C6 H10 O4



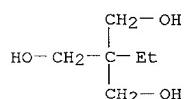
CM 3
CRN 121-91-5
CMF C8 H6 O4



CM 4
CRN 85-44-9
CMF C8 H4 O3



CM 5
CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1995:339556 HCAPLUS
DN 122:293522
TI Polyester-containing compositions for preparation of coatings
IN Sudo, Tetsuo; Uchida, Kenji; Ikegami, Masuya
PA Japan U Pica KK, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

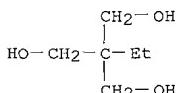
DT Patent
 LA Japanese
 IC ICM C09D167-00
 ICI C09D167-00, C09D161-32
 CC 42-8 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06287509	A2	19941011	JP 1993-79667	19930406
	JP 3210474	B2	20010917		
PRAI	JP 1993-79667		19930406		
AB The title compns., giving antisoiling coatings with impact and weather resistance and useful for coating outdoor building materials and metal panels, contain polyesters with no.-av. mol. wt 2000-20,000 and OH value 30-150 prep'd. from polyols contg. 5-40% 1,3-propanediol (I) and 5-50% amino resins. A compn. contg. isophthalic acid-neopentyl glycol-I-trimethylolpropane copolymer (acid no. 4.3; OH no. 37), TiO2, Cymel 303, Nacure 3525, Fluorad FC 430, xylene, and propylene glycol mono-Me ether acetate was coated on a surface and cured at 230.degree. to form a film with 60.degree. gloss 86%, cross-cut adhesion 100/100, and pencil hardness H.					
ST	polyester aminoplast coating weather resistance; antisoiling coating polyester aminoplast; impact resistance coating polyester aminoplast; propanediol polyester aminoplast coating				
IT	Polyesters, uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (antisoiling and impact- and weather-resistant coatings from aminoplasts and)				
IT	Aminoplasts RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (antisoiling and impact- and weather-resistant coatings from polyesters and)				
IT	Coating materials (antisoiling and impact- and weather-resistant; aminoplast-polyester compns. for)				
IT	Fatty acids, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coco, polymers with polycarboxylic acids and polyols, coatings; antisoiling and impact- and weather-resistant)				
IT	77-99-6DP, Trimethylolpropane, polymers with polycarboxylic acids and polyols and coco fatty acids 121-91-5DP, Isophthalic acid, polymers with polycarboxylic acids and polyols and coco fatty acids 124-04-9DP, Adipic acid, polymers with polycarboxylic acids and polyols and coco fatty acids 126-30-7DP, Neopentyl glycol, polymers with polycarboxylic acids and polyols and coco fatty acids 504-63-2DP, 1,3-Propanediol, polymers with polycarboxylic acids and polyols and coco fatty acids 163186-14-9P 163186-15-0P 163186-16-1P 163186-17-2P 163186-18-3P RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coatings; antisoiling and impact- and weather-resistant)				
IT	77-99-6DP, Trimethylolpropane, polymers with polycarboxylic acids and polyols and coco fatty acids 124-04-9DP, Adipic acid, polymers with polycarboxylic acids and polyols and coco fatty acids				

126-30-7DP, Neopentyl glycol, polymers with polycarboxylic acids and polyols and coco fatty acids
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (coatings; antisoiling and impact- and weather-resistant)

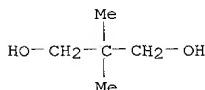
RN 77-99-6 HCAPLUS
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1995:207838 HCAPLUS
 DN 122:136295
 TI Weather-resistant topcoat compositions for automobiles
 IN Narita, Yoshinori; Ito, Hiroshi; Nishizawa, Koji; Kano, Katsuhiko
 PA Toyota Motor Co Ltd, Japan; Nippon Paint Co Ltd
 SO Jpn. Kokai Tokyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C09D201-02
 ICS C09D163-00; C09D167-00
 CC 42-10 (Coatings, Inks, and Related Products)
 FAN.CNT 1

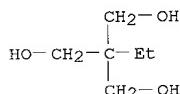
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06228503	A2	19940816	JP 1993-14592	19930201
PRAI	JP 1993-14592		19930201		
AB	The title thermosetting coating compns. with good resistance to acid rain contain (A) polyesters with OH value 200-300, (B) copolymers of radically polymerizable monomers having acid anhydride groups and other comonomers in which the acid anhydride groups are half esterified, and (C) compds. having both epoxy groups and OH in the mol. at B/C = 30/70 to 70/30 and				

content of A 5-20 parts (based on 100 parts B + C). Thus, isophthalic acid 215.8, adipic acid 65, 1,6-hexanediol 89.7, neopentyl glycol 98.2, trimethylolpropane 65, and Cardura E 54.0 g were polymd., then dild. with 9/1 xylol/Butyl Cellosolve to give a polyester varnish (nonvolatile content 60%; OH value 208), 14.6 parts of which was mixed with an acrylic resin varnish with nonvolatile content 59% (prepd. by copolymg. styrene 50, glycidyl methacrylate 400, 2-hydroxyethyl methacrylate 350, and 2-ethylhexyl acrylate 200 parts in xylene) 100, a half esterified polymer (obtained by treating 385 parts acid anhydride group-contg. polymer obtained by copolymg. styrene 25, Bu acrylate 21, Bu methacrylate 95, 2-ethylhexyl methacrylate 34, and itaconic acid anhydride 50 parts with MeOH in the presence of AcOBu and Et3N) 130, Bu4NBr 0.3, Tinuvin 900 1.3, and Sanol LS 299 0.7 part to give a clear coating, which was dild. with 1/1 AcOBu/xylene, then spread on a phosphate-treated steel plate precoated with a metallic base coating by wet-on-wet process, then baked at 140.degree. for 30 min to give a coating film with pencil hardness H, which showed good resistance to immersing water at 40.degree. for 10 days or in 10% aq. H₂SO₄ at 70.degree. for 15 min.

- ST weather resistant topcoating automobile; polyester acrylic thermosetting topcoating
- IT Fatty acids, uses
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (C9-11-branched, glycidyl esters, acrylic-polyester derivs.; thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT Polyesters, uses
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (acrylic, thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT Coating materials
 - (thermosetting, topcoats, transparent, weather-resistant; thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT 12597-69-2, Steel, miscellaneous
 - RL: MSC (Miscellaneous)
 - (phosphate-treated, coating substrates; thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT 77-99-6DP, acrylic-polyester derivs. 97-88-1DP, acrylic-polyester derivs. 100-42-5DP, acrylic-polyester derivs. 103-11-7DP, acrylic-polyester derivs. 106-91-2DP, acrylic-polyester derivs. 121-91-5DP, 1,3-Benzenedicarboxylic acid, acrylic-polyester derivs. 124-04-9DP, Hexanedioic acid, acrylic-polyester derivs. 126-30-7DP, acrylic-polyester derivs. 141-32-2DP, acrylic-polyester derivs. 629-11-8DP, 1,6-Hexanediol, acrylic-polyester derivs. 688-84-6DP, acrylic-polyester derivs. 868-77-9DP, acrylic-polyester derivs. 2170-03-8DP, acrylic-polyester derivs.
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT 77-99-6DP, acrylic-polyester derivs. 124-04-9DP, Hexanedioic acid, acrylic-polyester derivs. 126-30-7DP, acrylic-polyester derivs.

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)

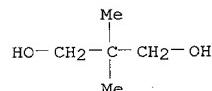
RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1993:562491 HCAPLUS
DN 119:162491
TI Water-thinned polyester coating compositions
IN Yamaguchi, Koichi; Goto, Tokio
PA Dainippon Ink and Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09D167-00
ICS C09D005-00; C09D005-08; C09D161-20
CC 42-8 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05039457	A2	19930219	JP 1991-199291	19910808
PRAI JP 1991-199291		19910808		

AB The title compns., forming coatings with excellent adhesion to metals, comprise aq. dispersions of polyesters with acid value (AV) 5-20 and OH value (OHV) 40-200, water-based amino resins, and optionally pigments. Thus, heating isophthalic acid 195, adipic acid 264,

neopentyl glycol 60, trimethylolpropane 208, and 1,6-hexanediol 352 parts in the presence of Bu₂SnO at 220.degree. gave a polyester (AV 16, OHV 140), which was treated with Et₃N in Bu Cellosolve and dispersed in water to give a 40%-solids aq. dispersion. A 80:20 mixt. of the dispersion and Watersol S 695 (66% solids) was blended with Tipaque R 930, applied on an cationic electrodeposited steel sheet, set 1 h at room temp., cured 20 min at 140.degree., and settled 3 days at room temp. to give a test piece showing 60.degree. gloss 90%, cross-cut adhesion 100/100, and good resistance to chipping, water, acid, alkali, and corrosion.

ST polyester coating adhesion metal; aminoplast hardener polyester coating; water thinned coating polyester

IT Crosslinking agents
(aminoplasts, for water-thinned polyester dispersion coatings, with good metal adhesion)

IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, water-thinned, for metals, with good adhesion)

IT Aminoplasts
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for water-thinned polyester dispersion coatings, with good metal adhesion)

IT Alkyd resins
RL: USES (Uses)
(vinyl polymer-modified, for water-thinned coatings, with good metal adhesion)

IT Fatty acids, polymers
RL: USES (Uses)
(dehydrated castor-oil, alkyd derivs., vinyl polymer-modified, for water-thinned coatings, with good metal adhesion)

IT Coating materials
(dispersion, water-thinned, polyester-aminoplast blends, for metals)

IT Urethane polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyester-, coatings, water-thinned, for metals, with good adhesion)

IT 12597-69-2, Steel, miscellaneous
RL: MSC (Miscellaneous)
(coatings for, water-thinned, polyester-aminoplast blends, with good adhesion.)

IT 9003-08-1, Watersol S 695
RL: USES (Uses)
(hardeners, for vinyl polymer-modified alkyd resins, for water-thinned coatings with good metal adhesion)

IT 77-99-6DP, alkyd derivs., vinyl polymer-modified, triethylamine salts 79-10-7DP, 2-Propenoic acid, polymers, reaction products with alkyd resins, triethylamine salts 121-91-5DP, 1,3-Benzenedicarboxylic acid, alkyd derivs., vinyl polymer-modified, triethylamine salts 124-04-9DP, Hexanedioic acid, alkyd derivs., vinyl polymer-modified, triethylamine salts 126-30-7DP, alkyd derivs., vinyl polymer-modified, triethylamine salts 141-32-2DP, polymers, reaction products with alkyd resins, triethylamine salts 629-11-8DP, 1,6-Hexanediol, alkyd derivs., vinyl polymer-modified, triethylamine salts 150108-29-5P 150108-31-9P
RL: PREP (Preparation)
(prep'n. of, coatings, water-thinned, with good metal adhesion)

IT 77-99-6DP, alkyd derivs., vinyl polymer-modified, triethylamine

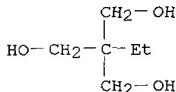
salts 124-04-9DP, Hexanedioic acid, alkyd derivs., vinyl polymer-modified, triethylamine salts 126-30-7DP, alkyd derivs., vinyl polymer-modified, triethylamine salts

RL: PREP (Preparation)

(prepns. of, coatings, water-thinned, with good metal adhesion)

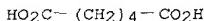
RN 77-99-6 HCAPLUS

CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



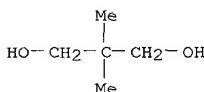
RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS

CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:166526 HCAPLUS

DN 114:166526

TI Self-adhesive, multilayer, thermoformable decorative covers

IN Hartman, Marvis Edgar

PA PPG Industries, Inc., USA

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B32B027-42

ICS B32B027-40; B32B027-30; B05D007-16; B05D001-00; C09D175-04; C09D161-28

CC 42-11 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 395227	A1	19901031	EP 1990-303337	19900329
	R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
	CA 2013676	AA	19901027	CA 1990-2013676	19900403
	JP 02301431	A2	19901213	JP 1990-115041	19900427
PRAI	US 1989-344172		19890427		

- AB Decorative covers, e.g., for automobile bodies, comprise a thermoformable plastic carrier, an adhesive on one side, and a multilayer system comprising a clear top layer, a pigmented base layer (contg. a thermoplastic binder and an aminoplast), and optionally, a tie-layer between the base layer and the carrier on the other side. The adhesive side is temporarily protected by paper or plastic film. Thus, a 7-mil polyester (PMB 10231) film was coated on one side with a 3-mil acrylic adhesive and coated on the other side with a 0.33-mil tie-layer prep'd. by drying an aq. compn. contg. a polyester-polyoxyalkylene-polyurethane, an acrylic polymer, and a melamine resin 10 min at 180.degree.F. The tie-layer side was coated with a 3.1-mil TiO₂-pigmented polyester-polyoxyalkylene-polyurethane-melamine resin blend based layer (cured at 10 min at 180.degree.F) and overcoated with a 2.5-mil 2-package block polyester-polyurethane clear layer (cured 10 min at 180.degree.F).
- ST self adhesive multilayer decorative cover; thermoformable decorative cover automobile body; polyester multilayer decorative cover; acrylic adhesive multilayer decorative cover; polyoxyalkylene polyester polyurethane decorative cover; melamine resin multilayer decorative cover; titania pigmented multilayer decorative cover
- IT Adhesives
(acrylic and acrylic-polyurethane, for self-adhesive multilayer thermal formable decorative covering films)
- IT Polyesters, uses and miscellaneous
RL: USES (Uses)
(carrier films, for self-adhesive multilayer thermoformable decorative cover films)
- IT Mica-group minerals, uses and miscellaneous
RL: USES (Uses)
(metal-coated, pigments, for self-adhesive multilayer thermoformable decorative cover films)
- IT Carbon black, uses and miscellaneous
RL: USES (Uses)
(pigments, for self-adhesive multilayer thermoformable decorative cover films)
- IT Automobiles
(bodies, decorative covering films for, self-adhesive multilayer thermal formable)
- IT Urethane polymers, uses and miscellaneous
RL: USES (Uses)
(polyester-, block, clear layers, for self-adhesive multilayer thermal formable decorative covering films)
- IT Rubber, urethane, uses and miscellaneous
RL: USES (Uses)
(polyester-polyoxyalkylene-polyurea-, decorative cover films contg., self-adhesive multilayer, thermoformable)
- IT Rubber, synthetic
RL: USES (Uses)
(polyester-polyoxyalkylene-polyurea-polyurethane, decorative cover films contg., self-adhesive multilayer, thermoformable)
- IT 132965-55-0, PMS 10231
RL: USES (Uses)
(carrier films, for self-adhesive multilayer thermoformable decorative cover films)
- IT 9003-08-1, Resimene 717
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for tie-layers for self-adhesive multilayer thermoformable decorative cover films)
- IT 69834-15-7P 132878-92-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. and lamination of)

IT 77-99-6DP, fatty acid dimer-based block polyester-polyurethanes
126-30-7DP, fatty acid dimer-based block polyester-polyurethanes
3779-63-3DP, fatty acid dimer-based block polyester-polyurethanes
4098-71-9DP, Isophorone diisocyanate, fatty acid dimer-based block
polyester-polyurethanes 27193-25-5DP, Cyclohexanedimethanol, fatty acid
dimer-based block polyester-polyurethanes 104559-01-5DP, Desmodur
N-3300, fatty acid dimer-based block polyester-polyurethanes
133170-64-6P

RL: PREP (Preparation)
(manuf. of, for clear layers for self-adhesive multilayer
thermoformable decorative cover films)

IT 52991-24-9DP, Hydroxyethylmethylenimine, reaction products with
polyester-polyoxyalkylene-polyurethanes 64614-15-9P 69834-15-7DP,
reaction products with hydroxyethylmethylenimine 116243-55-1P,
Adipic acid-neopentyl glycol-tetrahydrophthalic anhydride-
trimethylolpropane copolymer phosphate 132878-92-3DP, reaction products
with hydroxyethylmethylenimine

RL: PREP (Preparation)
(manuf. of, for self-adhesive multilayer thermoformable decorative
cover films)

IT 65997-31-1P

RL: PREP (Preparation)
(manuf. of, for tie-layers for self-adhesive multilayer thermoformable
decorative cover films)

IT 147-14-8 7429-90-5, Aluminum, uses and miscellaneous 12597-70-5,
Bronze 13463-67-7, Titanium oxide (TiO₂), uses and miscellaneous

RL: USES (Uses)
(pigments, for self-adhesive multilayer thermoformable decorative cover
films)

IT 116243-55-1P, Adipic acid-neopentyl glycol-tetrahydrophthalic
anhydride-trimethylolpropane copolymer phosphate

RL: PREP (Preparation)
(manuf. of, for self-adhesive multilayer thermoformable decorative
cover films)

RN 116243-55-1 HCPLUS

CN Hexanedioic acid, polymer with 4-cyclohexene-1,2-dicarboxylic acid,
2,2-dimethyl-1,3-propanediol and 2-ethyl-2-(hydroxymethyl)-1,3-
propanediol, phosphate (9CI) (CA INDEX NAME)

CM 1

CRN 7664-38-2

CMF H3 O4 P



CM 2

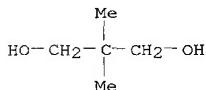
CRN 188494-47-5

Wyrozebski Lee 09/936508 10/16/03 Page 71

CMF (C₈ H₁₀ O₄ . C₆ H₁₄ O₃ . C₆ H₁₀ O₄ . C₅ H₁₂ O₂)_x
CCI PMS

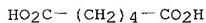
CM 3

CRN 126-30-7
CMF C₅ H₁₂ O₂



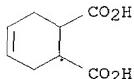
CM 4

CRN 124-04-9
CMF C₆ H₁₀ O₄



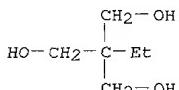
CM 5

CRN 88-98-2
CMF C₈ H₁₀ O₄



CM 6

CRN 77-99-6
CMF C₆ H₁₄ O₃



L56 ANSWER 17 OF 26 HCPLUS COPYRIGHT 2003 ACS on STN
AN 1986:516759 HCPLUS
DN 105:116759
TI Paint compositions

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IN Sakata, Kenji; Kikuta, Yoshio; Misawa, Akira; Hasegawa, Yugo
 PA Mitsui Toatsu Chemicals, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D005-38

ICS C09D003-58

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61055169	A2	19860319	JP 1984-178104	19840827
	JP 05001312	B4	19930107		
PRAI	JP 1984-178104			19840827	

AB Compsn. for weather-resistant **metallic coatings** for automobiles comprise 100 parts mixt. of 90-30 parts polymer contg. functional groups and 10-70 parts alicyclic polyvalent epoxy resin, 0.2-2.0 parts F3CSO₃H, Al powder, and pigments. Thus, 40.0 parts acrylic resin prepnd. from styrene 10, Me methacrylate 25, Et acrylate 30, Bu' methacrylate 21, 2-hydroxyethyl methacrylate 12, and acrylic acid 2 parts was mixed with ERL 4221 20.0, Alpast 1700 NL (Al powder) 15.2, and F3CSO₃H neutralized with Et₃N 0.8 part, then dild. with 1:1:1 mixt. of xylene, ethylene glycol monobutyl ether, and Et acetate to Ford Cup No. 4 viscosity 20 s to obtain a paint compn.. A dull Cu plate coated with this paint compn., then with acrylic top coat did not change after 72 h at 50.degree. and 100% relative humidity and showed gloss (60.degree.) 97 and pencil hardness H.

ST metallic paint compn automobile; acrylic polymer metallic paint compn; epoxy resin metallic paint compn; aluminum powder metallic paint compn; fluoromethanesulfonic acid metallic paint compn

IT Coating materials (weather-resistant, **metallic**, contg. epoxy resin-functional polymer binder and aluminum powder and trifluoromethanesulfonic acid, for automobiles)

IT 69399-83-3 104282-85-1

RL: USES (Uses)
 (blend with alicyclic epoxy resin, **coatings**, contg.
 aluminum powder, for automobiles)

IT 25085-98-7

RL: USES (Uses)
 (blend with functional polymer, **coatings**, contg.
 aluminum powder, for automobiles)

IT 1493-13-6

RL: USES (Uses)
 (epoxy-functional polymer coatings contg.,)

IT 7429-90-5, uses and miscellaneous

RL: USES (Uses)
 (pigment, epoxy-functional polymer coatings contg., for automobiles)

IT 104282-85-1

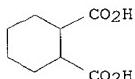
RL: USES (Uses)
 (blend with alicyclic epoxy resin, **coatings**, contg.
 aluminum powder, for automobiles)

RN 104282-85-1 HCPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,2-cyclohexanedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

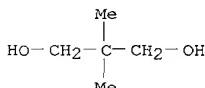
CM 1

CRN 1687-30-5
CMF C8 H12 O4



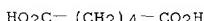
CM 2

CRN 126-30-7
CMF C5 H12 O2



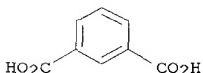
CM 3

CRN 124-04-9
CMF C6 H10 O4



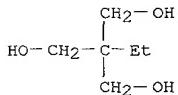
CM 4

CRN 121-91-5
CMF C8 H6 O4



CM 5

CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1985:26507 HCAPLUS

DN 102:26507

TI Compositions for wet-on-wet coating with water-thinned primers

PA Nippon Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C09D003-64; C09D005-00

CC 42-8 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59115364	A2	19840703	JP 1982-223664	19821222
	JP 05087546	B4	19931217		

PRAI JP 1982-223664 19821222

AB Water-thinned precoats of polymers having both OH and CO₂H groups, with no.-av. mol. wt. (.hivin.Mn) 1000-4000 and acid value (.chi.a) 10-80 can be coated with org. solvent-thinned compns. of similar polymers without first drying or baking the precoat. Thus, tall-oil fatty acids 260, trimethylolpropane 432, neopentyl glycol 56, polyethylene glycol 65, isophthalic acid 159, phthalic anhydride 283, tetranydrophthalic anhydride 147, xylene 26, and Bu₂SnO 1.3 g were mixed and heated, distg. off water, to form an alkyd resin (I) having .hivin.Mn 1450 and .chi.a 31. I 25, butylated melamine resin (II) 6, TiO₂ 20, Butyl Cellosolve (III) [111-76-2] 5, Et₃N 1, leveling agents 2, and water 41 parts were mixed to form an electrophoretic coating compn., which was applied to test plates to form a precoat 30-40.mu. thick. The precoated plate was then sprayed with a compn. of I 31.2, II 11.0, TiO₂ 27.0, III 11.8, isopropyl alc. [67-63-0] 18.0, Et₃N 1.0, and leveling agent 0.1 part to form a topcoat 30-40.mu. thick. After 10 min at room temp., the plate was baked at 150.degree. for 30 min to form a cured coating showing no blistering, and good topcoat hiding power.

ST wet on wet alkyd coating; tall oil acid alkyd coating

IT Fatty acids, polymers

RL: USES (Uses)
 (castor-oil, alkyd resins, coatings, wet-on-wet, water- and solvent-thinned)

IT Fatty acids, polymers

RL: USES (Uses)
 (soya, alkyd resins, coatings, wet-on-wet, water- and solvent-thinned)

IT Fatty acids, polymers

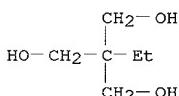
RL: USES (Uses)
 (tall-oil, alkyd resins, coatings, wet-on-wet, water- and solvent-thinned)

IT Coating materials

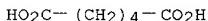
(wet-on-wet, alkyd resins, water- and solvent-thinned)

IT 77-85-0D, alkyd resins 77-99-6D, alkyd resins 85-42-7D, alkyd

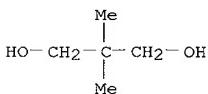
resins 85-43-8D, alkyd resins 85-44-9D, alkyd resins 107-21-1D,
alkyd resins 111-29-5D, alkyd resins 111-46-6D, alkyd resins
115-77-5D, alkyd resins 121-91-5D, alkyd resins 123-99-9D, alkyd
resins 124-04-9D, alkyd resins 126-30-7D, alkyd resins
552-30-7D, alkyd resins 25322-68-3D, alkyd resins
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, wet-on-wet, water- and solvent-thinned)
IT 67-63-0, uses and miscellaneous 111-76-2
RL: USES (Uses)
(in manuf. of alkyd coating compns.)
IT 77-99-6D, alkyd resins 124-04-9D, alkyd resins
126-30-7D, alkyd resins
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, wet-on-wet, water- and solvent-thinned)
RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1983:524226 HCAPLUS
DN 99:124226
TI Liquid coating composition for metal
surfaces, and a process for coating them with this coating
composition
IN Nota, Gabriel A. H.; Toth, Anton
PA ASTRAL Societe de Peintures et Vernis, Fr.; ATO Chimie
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
IC C09D003-70; C09D003-66
CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1		KIND	DATE	APPLICATION NO.	DATE
PI	EP 83139	A1	19830706	EP 1982-201648	19821222
	EP 83139	B1	19860611		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AU 8291745	A1	19830630	AU 1982-91745	19821221
	AU 555040	B2	19860911		
	AT 20355	E	19860615	AT 1982-201648	19821222
	DK 8205703	A	19830625	DK 1982-5703	19821223
	FI 8204448	A	19830625	FI 1982-4448	19821223
	FI 74296	B	19870930		
	FI 74296	C	19880111		
	NO 8204353	A	19830627	NO 1982-4353	19821223
	BR 8207470	A	19831018	BR 1982-7470	19821223
	ZA 8209474	A	19831026	ZA 1982-9474	19821223
	US 4424239	A	19840103	US 1982-452722	19821223
	ES 518504	A1	19840201	ES 1982-518504	19821223
	CA 1172788	A1	19840814	CA 1982-418507	19821223
	JP 58164658	A2	19830929	JP 1982-226464	19821224
PRAI	NL 1981-5834		19811224		
	EP 1982-201648		19821222		
AB	A coil coating compn. is described contg. 10-80% powd. polyamide with softening point 110-230.degree. and an av. particle size 0.5-200 .mu., 20-90% polyol with no.-av. mol. wt. 800-20,000 and OH-functionality 1.5-6, crosslinking agent in the mol. ratio 0.6-1.5:1 between polyol-reactive groups of this agent and polyol, and 40-60% org. solvent with b.p. 140-310.degree. for the polyol. Thus, a coating was prep'd. by admixing 70% adipic acid-2,2-dimethyl-1,3-propanediol-ethylene glycol-isophthalic acid-1,1,1-trimethylolpropane copolymer [28430-18-4] soln. in ethylene glycol acetate Et ether [111-15-9]-Solvesso 150 (1:2) mixt., 50; nylon 12 [24937-16-4] 40; hexamethoxymethylmelamine [3089-11-0] 9; solvent mixt. 20; pigment dispersion 81; leveling agent 2; and a crosslinking catalyst 0.1 part. The coating is applied onto an epoxy-primed steel substrate to thickness 25-30 .mu. (in cured state) and dried at 300-400.degree. for 20-60 s, exhibited Gardner back impact resistance 160 in-lb, salt spray resistance 600 h (ASTM B 117-64), wt. loss to abrasion 18 mg/1000 cycles, and good flexibility.				
ST	crosslinking agent polyamide polyester coating; solvent polyamide polyester coating; coil polyamide polyester coating				
IT	Coating materials (polyamide and hydroxy-functional polyester compns., for coils)				
IT	Aromatic hydrocarbons, uses and miscellaneous				
	RL: USES (Uses) (solvents, for polyamide and hydroxy-functional polyester coil coatings)				
IT	Crosslinking agents (thermal, for polyamide-hydroxy-functional polyester coatings)				
IT	24936-74-1 24937-16-4 RL: USES (Uses) (coatings contg. hydroxy-functional polyesters and, for coil stock)				
IT	77-99-6D, polymers with Cl8-synthetic acids and phthalic anhydride, reaction products with Me-Ph siloxane 85-44-9D, polymers with Cl8-synthetic acid and trimethylolpropane, reaction products with Me-Ph siloxane 6843-66-9D, reaction products with dimethylpropanediol-ethylene glycol-hexahydrophthalic anhydride-trimethylolpropane copolymer 28430-18-4 29408-39-7D, reaction products with alkoxylated Me-Ph				

siloxane 31070-11-8 52453-41-5 87079-33-2D, reaction products with
Ph siloxane diol 87079-34-3 87079-34-3D, reaction products with
diphenyldimethoxysilane

RL: USES (Uses)
(coatings contg. polyamides and, for coil stock)

IT 3089-11-0 72968-13-9

RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for polyamide and hydroxy-functional polyester
coil coatings)

IT 78-59-1 111-15-9 111-76-2 112-07-2 1330-20-7, uses and
miscellaneous

RL: USES (Uses)
(solvents, for polyamide and hydroxy-functional polyester coil
coatings)

IT 28430-18-4

RL: USES (Uses)
(coatings contg. polyamides and, for coil stock)

RN 28430-18-4 HCAPLUS

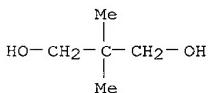
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,
1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic
acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

CMF C5 H12 O2

respietyl glycol

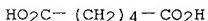


CM 2

CRN 124-04-9

CMF C6 H10 O4

adipic acid

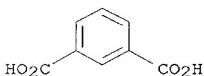


CM 3

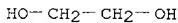
CRN 121-91-5

CMF C8 H6 O4

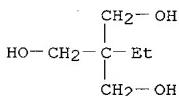
phthalic



CM 4

CRN 107-21-1
CMF C2 H6 O2

CM 5

CRN 77-99-6
CMF C6 H14 O3L56 ANSWER 20 OF 26 HCPLUS COPYRIGHT 2003 ACS on STN
AN 1983:127820 HCPLUS

DN 98:127820

TI Metallic finishing

PA Mitsui Toatsu Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC B05D005-06; B05D001-38

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57156069	A2	19820927	JP 1981-41957	19810323
	JP 61047146	B4	19861017		
PRAI	JP 1981-41957		19810323		

AB A substrate was coated with a midlayer sealer and a metallic paint by a two-coat-one-bake method, coated with a clear topping, and baked to give a flawless finish coating with excellent surface smoothness. For example, styrene 15, Me methacrylate 30, Bu acrylate 20, 2-ethylhexyl acrylate 20, 2-hydroxyethyl methacrylate 13, and acrylic acid 2 parts were polymd. in the presence of 1.5 parts Bz2O2 in 70:30 xylene-BuOH to give a 50%-solids soln. which (88 parts) was mixed with Yuban 20SE-60 18.3, TiO2 45, and carbon black 0.7 part and dild. with 80:20 xylene-BuOCH2CH2OH to Ford cup no. 4 viscosity 25 s to give a midlayer sealer. Styrene 10, Me methacrylate 20, Et acrylate 20, Bu acrylate 20, 2-ethylhexyl acrylate 13, 2-hydroxyethyl acrylate 15, and methacrylic acid 2 parts were polymd. in the presence of 3.5 parts Bz2O2 in 70:30 xylene-BuOH to give a 65%-solids soln. which (140 parts) was mixed with 50 parts Yuban 20SE-60 and 13 parts Alpaste 1109MA and thinned with solvents to give a 45%-solids metallic paint having Ford cup no. 4

viscosity 14 s. Styrene 10, Me methacrylate 17, Bu acrylate 18, 2-ethylhexyl methacrylate 35, 2-hydroxyethyl methacrylate 18, and acrylic acid 2 parts were polymd. in the presence of 2 parts Bz2O2 in 80:20 Solvesso 100-BuOH to give a 50%-solids soln. which (140 parts) was mixed with Yuban 20SE-60 50, a flow control 0.2, and Tinuvin 0.2 part and thinned with Solvesso 100 to Ford cup no. 4 viscosity 30 s to give a clear topping compn. A Zn phosphate-treated steel plate baked with an electrophoretic primer was coated with the sealer, set 3 min, coated with the metallic paint, set 10 min, baked at 120.degree. for 20 min, cooled to room temp., coated with the topping, set 10 min, and baked at 140.degree. for 20 min to give a flawless coating (20 .mu. sealer, 15 .mu. metallic, 28 .mu. topping) with better surface smoothness than a control (contg. cracks) using a 2-coat-2-bake method for the sealer-metallic paint system.

ST acrylic metallic paint finishing

IT Coating process

(of midlayer sealers and metal paints and clear toppings)

IT 77492-22-9

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, clear, on metallic paints)

IT 71815-98-0 85110-88-9 85110-90-3 85110-91-4

RL: USES (Uses)

(metallic paint undercoatings and clear top coatings for)

IT 28430-18-4 61988-41-8 85110-89-0

RL: USES (Uses)

(sealers, contg. melamine resins, under metallic paints)

IT 28430-18-4

RL: USES (Uses)

(sealers, contg. melamine resins, under metallic paints)

RN 28430-18-4 HCAPLUS

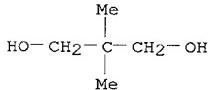
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

has all components

CRN 126-30-7

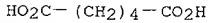
CMF C5 H12 O2



CM 2

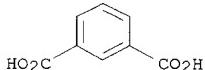
CRN 124-04-9

CMF C6 H10 O4



CM 3

CRN 121-91-5
CMF C8 H6 O4



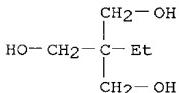
CM 4

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

CM 5

CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1979:576817 HCAPLUS

DN 91:176817

TI Curing resin compositions for baking varnish

IN Take, Morio; Ikeguchi, Nobuyuki; Kimbara, Hidenori

PA Mitsubishi Gas Chemical Co., Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C08G073-06

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54099200	A2	19790804	JP 1978-5007	19780120
	JP 57006447	B4	19820204		
PRAI	JP 1978-5007		19780120		
AB	Thermosetting coatings contain mixts. or reaction products of polycyanates or prepolymers with polyfunctional maleimides or prepolymers and alkyd resins and/or acrylic resins with high acid nos. Thus, an oil-free alkyd				

resin (acid no. 40-45, mol. wt. 1840) from neopentyl glycol 348, trimethylolpropane 112, isophthalic acid 489, adipic acid 143, and trimellitic anhydride 44 parts is dild. with MeOCH₂CH₂OH to 70% solids. A mixt. of 80 parts this soln. (based on solids), 20 parts 2,2-bis(4-cyanatophenyl)propane [1156-51-0], and N,N'-(methylenedi-p-phenylene)dimaleimide [13676-54-5], dild. with 13.4 parts AcCH₂CO₂Et and 26 parts DMF, is coated on metal and baked 20 min at 160.degree..

ST alkyd coating thermosetting; maleimide deriv alkyd coating; cyanate ester alkyd coating

IT Coating materials

(alkyd resins, contg. bismaleimides and cyanate esters)

IT 1156-51-0 13676-54-5

RL: USES (Uses)

(in alkyd stoving finishes)

IT 64112-55-6

RL: USES (Uses)

(stoving finishes, contg. bismaleimides and cyanate esters)

IT 64112-55-6

RL: USES (Uses)

(stoving finishes, contg. bismaleimides and cyanate esters)

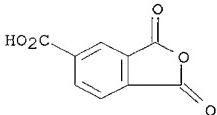
RN 64112-55-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 552-30-7

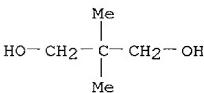
CMF C9 H4 O5



CM 2

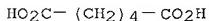
CRN 126-30-7

CMF C5 H12 O2

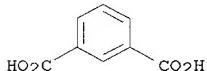


CM 3

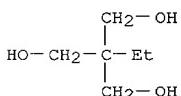
CRN 124-04-9
CMF C6 H10 O4



CM 4
CRN 121-91-5
CMF C8 H6 O4



CM 5
CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 22 OF 26 HCPLUS COPYRIGHT 2003 ACS on STN.
AN 1979:188614 HCPLUS
DN 90:188614
TI Metallic powder coating compositions
IN Murase, Heihachi
PA Kansai Paint Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC C09D005-00
CC 42-2 (Coatings, Inks, and Related Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53143630	A2	19781214	JP 1977-59035	19770520
JP 61036029	B4	19860815		

PRAI JP 1977-59035 19770520
AB A multilayered metallic coating is formed by a 1 coat-1 bake process from a powder compn. contg. .gtoreq.2 incompatible resins differing in surface tension and multilayer formation parameter (Hd; H is creep height in cm of molten resin along inner wall of a vertical glass tube immersed in the molten resin, at a given time and

temp., and d is resin d. in g/cm³). The metallic pigment is covered with a resin whose surface tension is not the lowest among the resins used and the pigment is prevented from exposure to the resin surface. For example, 10:20:40:15:15 2-ethylhexyl acrylate-glycidyl methacrylate-iso-Bu methacrylate-Me methacrylate-styrene copolymer [69725-55-9] was milled with 17 phr dodecanedicarboxylic acid to av. particle size 45.mu. (max. particle size <74 .mu.) to give component A with Hd 0.85 g/cm² and surface tension 80.6 dyne/cm. A 1:6:8:8:2.5 adipic acid-di-Me terephthalate-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer (I) [65421-56-9] (Hd 0.55 g/cm², surface tension 40 dyne/cm) was milled with 7 phr phthalocyanine blue and 80 phr .epsilon.-caprolactam-blocked isophorone diisocyanate (19% NCO) to give component B with Hd 0.48 g/cm² and surface tension 45.8 dyne/cm. A 0.5% I soln. in acetone was mixed in 100:80 ratio with Al flake and spray-dried to give component C. A 40:60:5 A-B-C powder compn. was electrostatically coated on an epoxy-primed steel and baked at 185.degree. for 85 min to give a coating of 75 .mu.-thick silvery blue I layer and 45 .mu.-thick acrylic top layer.

ST multilayer acrylic metallic paint; polyester multilayer metallic paint; epoxy multilayer metallic paint; powder **coating metallic steel**

IT **Coating materials**
(paint, **metallic**, multilayered, on steel, 1-step prepn. of)

IT **Coating materials**
(powder, **metallic**, multilayered, on steel, 1-step prepn. of)

IT 9004-36-8 25068-38-6 37337-82-9 63266-53-5 **65421-56-9**
69725-55-9 69841-05-0

RL: USES (Uses)
(coatings contg., **metallic** multilayer, on steel,
1-step prepn. of)

IT **65421-56-9**

RL: USES (Uses)
(coatings contg., **metallic** multilayer, on steel,
1-step prepn. of)

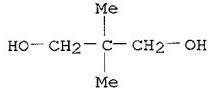
RN 65421-56-9 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

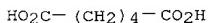
CMF C5 H12 O2



CM 2

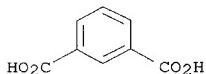
CRN 124-04-9

CMF C6 H10 O4



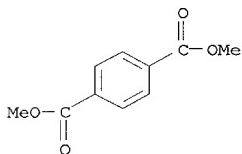
CM 3

CRN 121-91-5
CMF C8 H6 O4



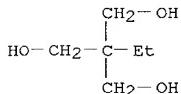
CM 4

CRN 120-61-6
CMF C10 H10 O4



CM 5

CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1977:191408 HCAPLUS
DN 86:191408
TI High solids content alkyd resin coating compositions
IN Ishii, Nobuyuki; Iwase, Seigo
PA Kansai Paint Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

DT Patent
 LA Japanese
 IC C09D005-08
 CC 42-2 (Coatings, Inks, and Related Products)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 52026534	A2	19770228	JP 1975-103251	19750826
PRAI JP 1975-103251		19750826		

AB High-solids (60-90%) resin coating compns. were prep'd. from neutralized solns. of oil-free alkyd resins or short oil alkyd resins of oil length \leq 1.1 toreq. 35% contg. tri- or tetrabasic acids. Thus, 100 parts polyester [62548-84-9] (av. mol. wt. 3500, OH no. 120, acid no. 40) obtained by heating at 230.degree. a mixt. of neopentyl glycol 0.75, trimethylolpropane 0.25, phthalic anhydride 0.60, adipic acid 0.16, and trimellitic anhydride 0.125 mol was dissolved in 20 parts Bu Cellosolve and neutralized with Et3N to give a neutralized resin soln. The resin soln. 110, M-504C [62601-52-9] (a com. melamine resin) 28, TiO₂ 500, and a film leveling agent 2 parts were uniformly dispersed, and dried. with Bu Cellosolve to give a resin coating compn. (68% solids), which was spray coated on an Al panel and baked 20 min at 120.degree. to give a 30-micron-thick anticorrosive, glossy, water-, and impact-resistant coating with pencil hardness 24, and adhesion 100/100 (crosscut test).

ST alkyd resin coating; aluminum anticorrosive alkyd coating

IT Coating materials
 (alkyd resins, high-solids oil-free or short oil, for aluminum)

IT 62601-52-9

RL: USES (Uses)
 (alkyd resin coatings contg., high-solids, for aluminum)

IT 7429-90-5, uses and miscellaneous
 RL: USES (Uses)
 (coatings for, high-solids, from oil-free or short oil alkyd resins)

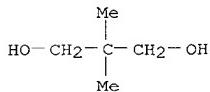
IT 62548-80-5 62548-81-6 62548-84-9 62694-56-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, high-solids, for aluminum)

IT 62548-81-6 62548-84-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, high-solids, for aluminum)

RN 62548-81-6 HCAPLUS

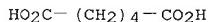
CN Hexanedioic acid, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7
 CMF C5 H12 O2

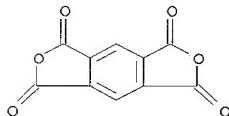
CM 2

CRN 124-04-9
CMF C6 H10 O4



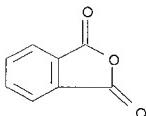
CM 3

CRN 89-32-7
CMF C10 H2 O6



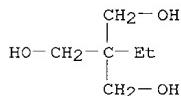
CM 4

CRN 85-44-9
CMF C8 H4 O3



CM 5

CRN 77-99-6
CMF C6 H14 O3



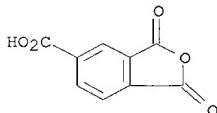
RN 62548-84-9 HCPLUS

CN Hexanedioic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI)

(CA INDEX NAME)

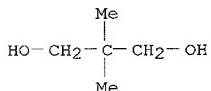
CM 1

CRN 552-30-7
CMF C9 H4 O5



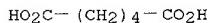
CM 2

CRN 126-30-7
CMF C5 H12 O2



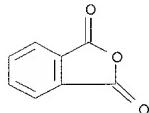
CM 3

CRN 124-04-9
CMF C6 H10 O4



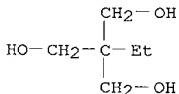
CM 4

CRN 85-44-9
CMF C8 H4 O3



CM 5

CRN 77-99-6
 CMF C6 H14 O3



L56 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1977:173222 HCAPLUS
 DN 86:173222
 TI Water-thinned resin coating compositions for aluminum substrates
 IN Ishii, Nobuyuki; Iwase, Seigo
 PA Kansai Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC C09D003-66
 CC 42-7 (Coatings, Inks, and Related Products)

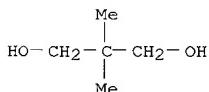
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 52019728	A2	19770215	JP 1975-96538	19750808
PRAI	JP 1975-96538		19750808		
AB	Water-thinned resin coating compns. are prep'd. by mixing water-sol. alkyd resins contg. tribasic or tetrabasic acid components with amino resins and applied to unprimed Al substrates. Thus, 110 parts of a resin [62548-84-9] (OH value 120, acid value 40, obtained by heating at 100.degree. a mixt. of neopentyl glycol 0.75, trimethylolpropane 0.25, phthalic anhydride 0.60, adipic acid 0.16, and trimellitic anhydride 0.125 mol) was dissolved in 20% Bu cellosolve, neutralized with Et3N, dild. with water to 65% resin, formulated with a com. melamine resin 28, TiO2 500, and an additive 2 parts, dild. with water to 40% solids (viscosity Ford Cup 20 sec, 20.degree.), sprayed onto an Al panel, and baked 20 min at 120.degree. to give a 30-.mu.-thick glossy, anticorrosive, impact- and water-resistant coating with pencil hardness 24, Erichsen value >7.0 mm and adhesion to the substrate 100/100 (crosscut test).				
ST	water thinned resin coating; alkyd resin coating; amino resin coating; anticorrosive resin coating aluminum				
IT	Coating materials (melamine resin-polyester compns., water-thinned, for aluminum)				
IT	Coconut oil (fatty acids, reaction products with polyesters, melamine resin-contg. water-thinned coatings, for aluminum)				
IT	7429-90-5, uses and miscellaneous (uses)				
IT	62601-52-9 (coatings for, water-thinned melamine resin-contg. polyesters as)				
IT	RL: USES (Uses) (coatings, contg. polyesters, water-thinned, for aluminum)				
IT	62548-80-5 62548-81-6 62548-82-7D, coconut oil fatty acid-modified 62548-83-8 62548-84-9				

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, water-thinned, contg. melamine resins, for aluminum)
IT 62548-81-6 62548-84-9
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, water-thinned, contg. melamine resins, for aluminum)
RN 62548-81-6 HCAPLUS
CN Hexanedioic acid, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetron, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

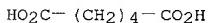
CM 1

CRN 126-30-7
CMF C5 H12 O2



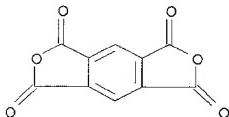
CM 2

CRN 124-04-9
CMF C6 H10 O4



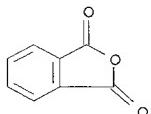
CM 3

CRN 89-32-7
CMF C10 H2 O6



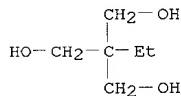
CM 4

CRN 85-44-9
CMF C8 H4 O3



CM 5

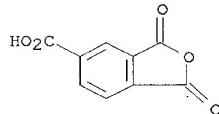
CRN 77-99-6
CMF C6 H14 O3



RN 62548-84-9 HCAPLUS
CN Hexanedioic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

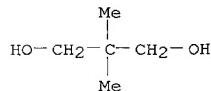
CM 1

CRN 552-30-7
CMF C9 H4 O5



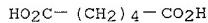
CM 2

CRN 126-30-7
CMF C5 H12 O2



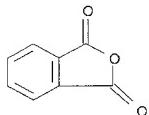
CM 3

CRN 124-04-9
CMF C6 H10 O4



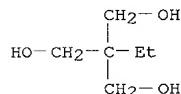
CM 4

CRN 85-44-9
CMF C8 H4 O3



CM 5

CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1975:517240 HCAPLUS
DN 83:117240
TI Stabilized coating composition
IN Chang, Wen-Hsuan; Porter, Samuel, Jr.; Wismer, Marco
PA PPG Industries, Inc.
SO Ger. Offen., 27 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C09D
CC 42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2407532	A1	19741128	DE 1974-2407532	19740216
	DE 2407532	B2	19760624		
	DE 2407532	C3	19770210		
	SE 404195	C	19790104	SE 1974-1148	19740129

SE 404195	B	19780925		
CA 1040785	A1	19781017	CA 1974-192135	19740208
GB 1459523	A	19761222	GB 1974-8068	19740222
AU 7466733	A1	19750918	AU 1974-66733	19740315
BR 7402481	A	19751202	BR 1974-2481	19740329
JP 50027828	A2	19750322	JP 1974-55311	19740514
JP 52024927	B4	19770705		
FR 2229746	A1	19741213	FR 1974-16932	19740515
IT 1014193	A	19770420	IT 1974-68521	19740515
US 4125570	A	19781114	US 1977-774296	19770304.
PRAI US 1973-361011		19730516		

AB Thermoset coatings with improved gloss retention, useful on automobiles, contain OH-contg. thermoset resins, aminoplasts, and .gt;req. 0.01% OH-free secondary or tertiary aliph. amine stabilizer. Thus, a mixt. of 55% MeCOBu soln. of polyurethane [54682-75-6] (acid no. .apprx.3.7, prepd. from 9300 parts adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane polymer, OH no. 53, acid no. .apprx.6, and 695 parts methylenedi-4,1-cyclohexylene isocyanate) 184, butylated melamine resin 78, cellulose acetate butyrate 20, N-(2-hydroxyethyl)ethylenimine-isophthalic acid-neopentyl glycol-sebacic acid-trimethylolpropane polymer, antioxidant 4.0, light stabilizer 4.0, p-MeCH₂SO₃H 1.0, Et₂NH 0.6, silicone 3.0, BuOH 44, pigments, and iso-BuCOMe 132 parts contg. 0.05-1.0% triethylenediamine (I) [280-57-9] coated on metal and baked 30 min at 121.degree. has better gloss retention than in the absence of I.

ST aminoplast thermoset coating; gloss retention coating; triethylenediamine stabilizer coating; polyester polyurethane coating

IT Urethane polymers, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, contg. aminoplasts, with improved gloss retention)

IT Coating materials

(polyesters, polyurethanes and aminoplasts, contg. amine stabilizers for improved gloss retention)

IT 54682-74-5 54682-75-6 54871-09-9

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, contg. aminoplasts, with improved gloss retention)

IT 110-91-8 280-57-9 3463-21-6

RL: USES (Uses)
(stabilizers, for thermoset coatings with improved gloss retention)

IT 54682-75-6

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, contg. aminoplasts, with improved gloss retention)

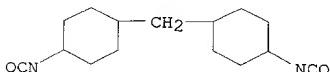
RN 54682-75-6 HCPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

CM 1

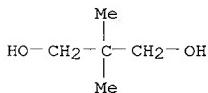
CRN 5124-30-1

CMF C15 H22 N2 O2



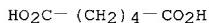
CM 2

CRN 126-30-7
CMF C5 H12 O2



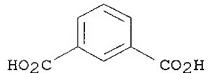
CM 3

CRN 124-04-9
CMF C6 H10 O4



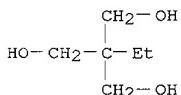
CM 4

CRN 121-91-5
CMF C8 H6 O4



CM 5

CRN 77-99-6
CMF C6 H14 O3



L56 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1970:478651 HCAPLUS
DN 73:78651
TI Polyester resin-modified vinyl resin coating compositions
IN Pontius, Jerry D.; Taylor, Meredith F.; Tieri, Caesar W., Jr.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

PA Sherwin-Williams Co.

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

IC C08F; C08G

NCL 260032800

CC 42 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3520844	A	19700721	US 1967-674717	19671012
PRAI	US 1967-674717		19671012		

AB Coatings with excellent hot hardness, gloss, and which require less plasticizer for good flexibility are prepd. from solns. of vinyl chloride-vinyl acetate-maleic anhydride copolymers (I), satd. oil-free polyesters, N-contg. crosslinking agents, and various carriers, heat stabilizers, marprofing agents, plasticizers, and acid catalysts. Thus, a polyester resin prepd. from trimethylolpropane, neopentyl glycol, adipic acid, and isophthalic acid was dissolved in a xylene-ethylene glycol mono-Bu ether mixed solvent to form a 60% solids soln. (A). A pigment dispersion prepd. from isophorone, a vinyl chloride vinylacetate copolymer, castor oil as dispersant, and TiO₂ is blended with a resin soln. comprising isophorone, naphtha, and a I to yield a mixt., which was blended with A and treated with Cyamel 301 as cross-linking agent, a wax soln., heat stabilizers, flow additives, and Aerosol OT acid catalyst at 130.degree.F to give a coating compn. useful for application on refrigerator linings or metals.

ST metals resinous coatings; vinyl resin coatings; coatings vinyl resin; polyester modified coatings; crosslinking vinyl copolymers; maleic anhydride copolymers; refrigerator linings coatings

IT Coating materials

(polyesters, vinyl copolymer-modified, on refrigerator linings)

IT 25085-82-9, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, contg. polyesters)

IT 25950-34-9 28430-17-3 28477-54-5

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, contg. vinyl acetate copolymers)

IT 28430-18-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 28430-17-3 28477-54-5

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, contg. vinyl acetate copolymers)

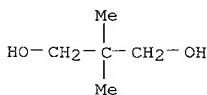
RN 28430-17-3 HCAPLUS

CN 1,3-Benzene dicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,2-propanediol (9CI) (CA INDEX NAME)

CM 1

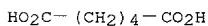
CRN 126-30-7

CMF C5 H12 O2



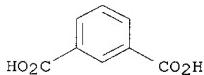
CM 2

CRN 124-04-9
CMF C6 H10 O4



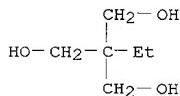
CM 3

CRN 121-91-5
CMF C8 H6 O4



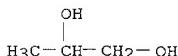
CM 4

CRN 77-99-6
CMF C6 H14 O3



CM 5

CRN 57-55-6
CMF C3 H8 O2



RN 28477-54-5 HCAPLUS

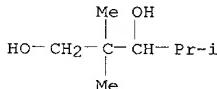
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,
2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and
2,2,4-trimethyl-1,3-pentanediol (9CI) (CA INDEX NAME)

CM 1

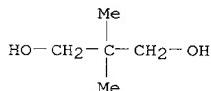
Has all components

CRN 144-19-4
CMF C8 H18 O2



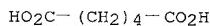
CM 2

CRN 126-30-7
CMF C5 H12 O2



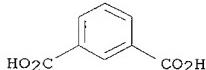
CM 3

CRN 124-04-9
CMF C6 H10 O4



CM 4

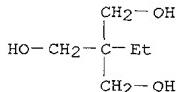
CRN 121-91-5
CMF C8 H6 O4



CM 5

CRN 77-99-6

CMF C6 H14 O3



IT 28430-18-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

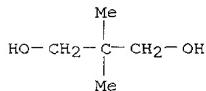
RN 28430-18-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,
1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic
acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

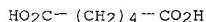
CMF C5 H12 O2



CM 2

CRN 124-04-9

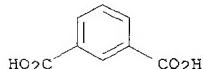
CMF C6 H10 O4



CM 3

CRN 121-91-5

CMF C8 H6 O4

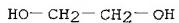


CM 4

CRN 107-21-1

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CMF C2 H6 O2



CM 5

CRN 77-99-6
CMF C6 H14 O3

